

103
REWRITING THE EXPORT ADMINISTRATION ACT

Y 4. F 76/1: EX 7/34

Rewriting the Export Administration...

HEARING
BEFORE THE
SUBCOMMITTEE ON
ECONOMIC POLICY, TRADE AND ENVIRONMENT
OF THE
COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRD CONGRESS

FIRST SESSION

NOVEMBER 18, 1993

Printed for the use of the Committee on Foreign Affairs



JUL 19 1994

U.S. GOVERNMENT PRINTING OFFICE

78-310 CC

WASHINGTON : 1994

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402

ISBN 0-16-044319-9

103
REWRITING THE EXPORT ADMINISTRATION ACT

Y 4.F 76/1:EX 7/34

Rewriting the Export Administration...

HEARING
BEFORE THE
SUBCOMMITTEE ON
ECONOMIC POLICY, TRADE AND ENVIRONMENT
OF THE
COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRD CONGRESS

FIRST SESSION

NOVEMBER 18, 1993

Printed for the use of the Committee on Foreign Affairs



JUL 19 1994

U.S. GOVERNMENT PRINTING OFFICE

78-310 CC

WASHINGTON : 1994

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402

ISBN 0-16-044319-9

COMMITTEE ON FOREIGN AFFAIRS

LEE H. HAMILTON, Indiana, *Chairman*

SAM GEJDENSON, Connecticut
TOM LANTOS, California
ROBERT G. TORRICELLI, New Jersey
HOWARD L. BERMAN, California
GARY L. ACKERMAN, New York
HARRY JOHNSTON, Florida
ELIOT L. ENGEL, New York
ENI F.H. FALEOMAVAEGA, American Samoa
JAMES L. OBERSTAR, Minnesota
CHARLES E. SCHUMER, New York
MATTHEW G. MARTINEZ, California
ROBERT A. BORSKI, Pennsylvania
DONALD M. PAYNE, New Jersey
ROBERT E. ANDREWS, New Jersey
ROBERT MENENDEZ, New Jersey
SHERROD BROWN, Ohio
CYNTHIA A. MCKINNEY, Georgia
MARIA CANTWELL, Washington
ALCEE L. HASTINGS, Florida
ERIC FINGERHUT, Ohio
PETER DEUTSCH, Florida
ALBERT RUSSELL WYNN, Maryland
DON EDWARDS, California
FRANK McCLOSKEY, Indiana
THOMAS C. SAWYER, Ohio
(Vacancy)

BENJAMIN A. GILMAN, New York
WILLIAM F. GOODLING, Pennsylvania
JAMES A. LEACH, Iowa
TOBY ROTH, Wisconsin
OLYMPIA J. SNOWE, Maine
HENRY J. HYDE, Illinois
DOUG BEREUTER, Nebraska
CHRISTOPHER H. SMITH, New Jersey
DAN BURTON, Indiana
JAN MEYERS, Kansas
ELTON GALLEGLY, California
ILEANA ROS-LEHTINEN, Florida
CASS BALLENGER, North Carolina
DANA ROHRBACHER, California
DAVID A. LEVY, New York
DONALD A. MANZULLO, Illinois
LINCOLN DIAZ-BALART, Florida
EDWARD R. ROYCE, California

MICHAEL H. VAN DUSEN, *Chief of Staff*
RICHARD J. GARON, *Minority Chief of Staff*
ANNE GREY, *Staff Associate*

SUBCOMMITTEE ON ECONOMIC POLICY, TRADE AND ENVIRONMENT

SAM GEJDENSON, Connecticut, *Chairman*

JAMES L. OBERSTAR, Minnesota
CYNTHIA A. MCKINNEY, Georgia
MARIA CANTWELL, Washington
ERIC FINGERHUT, Ohio
ALBERT RUSSELL WYNN, Maryland
HARRY JOHNSTON, Florida
ELIOT L. ENGEL, New York
CHARLES E. SCHUMER, New York

TOBY ROTH, Wisconsin
DONALD A. MANZULLO, Illinois
DOUG BEREUTER, Nebraska
JAN MEYERS, Kansas
CASS BALLENGER, North Carolina
DANA ROHRBACHER, California

JOHN SCHEIBEL, *Staff Director*
EDMUND B. RICE, *Republican Professional Staff Member*
KATHLEEN BERTELSEN, *Professional Staff Member*
DONNA LA TORRE, *Professional Staff Member*
PETER YEO, *Professional Staff Member*

CONTENTS

WITNESSES

	Page
Hon. William Thomas, a Representative in Congress from the State of California	2
David Richardson, Institute for International Economics	8
Hon. Charles Schumer, a Representative in Congress from the State of New York	12
Paul Freedenberg, international trade consultant, Baker & Botts, on behalf of Computers, Business Equipment and Manufacturers' Association	17
Thomas T. Connelly, senior vice president, Hardinge Brothers, Inc., representing the Association for Manufacturing Technology	21
Boyd McKelvain, senior manager for international trade regulations, international law and policy, General Electric, representing the Industry Coalition on Technology Transfer	23
Jess N. Hordes, director, Washington Office, Anti-Defamation League	32
David Danjczek, vice president for international business, Litton Industries, representing Electronic Industries Association	37
Richard Lehmann, director of public affairs, Washington Office, IBM Corporation, representing the Emergency Committee for American Trade	39

APPENDIX

Prepared statements:	
Hon. Sam Gejdenson	45
Hon. William Thomas	46
Hon. Don Edwards	48
Hon. Charles Schumer	50
Hon. Don Manzullo	56
David Richardson	57
Paul Freedenberg	72
Thomas T. Connelly	89
Boyd McKelvain	102
Jess N. Hordes	116
David Danjczek	126
Richard Lehmann	131

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Prepared statements:	
O. Bradford Butler, chief executive officer, Northern Telecom	137
Frank A. Taormina, vice president, Hughes Space and Communications Company	147
Chemical Manufacturers Association, written comments	154
"Underlying concepts for United States Export Control Reform", submitted by the Emergency Committee for American Trade	157

REWRITING THE EXPORT ADMINISTRATION ACT

THURSDAY, NOVEMBER 18, 1993

HOUSE OF REPRESENTATIVES,
COMMITTEE ON FOREIGN AFFAIRS,
SUBCOMMITTEE ON ECONOMIC POLICY,
TRADE AND ENVIRONMENT,
Washington, DC.

The subcommittee met, pursuant to call, at 9:30 a.m. in room 2172, Rayburn House Office Building, Hon. Sam Gejdenson (chairman of the subcommittee) presiding.

Mr. GEJDENSON. The committee will come to order. This is the last in a series of five subcommittee hearings that will enable us to markup a rewrite of the Export Administration Act by late January of 1994. These hearings have, thus far, spawned two interesting legislative proposals, one introduced by Mr. Roth and Mr. Oberstar, and one introduced by Mr. Manzullo, Ms. Cantwell and others. These bills will be given serious consideration as we prepare our rewrite.

The administration has promised us a bill of its own by the end of November. We very much look forward to receiving that proposal and integrating it into our rewrite. We fully anticipate working closely and cooperatively with the administration at every step of the way throughout the legislative process. Of course, the high technology area is the place the United States is most competitive. So the export provisions have the greatest impact not just on our present economic situation but in the long term.

President Clinton's recent decontrol of computers was the most significant reform in export controls at least since the end of the cold war. It reflected a recognition of what is and what is not controllable, and the need to focus our efforts on multilateral export controls imposed on chokepoint technology.

Today's hearing brings together those in the private sector who have not yet had the opportunity to present their views to the subcommittee. We had invited the administration, but because it is still working toward a November 30, date, its final position was not yet available.

The setting for this hearing will be provided by David Richardson of the Institute for International Economics. Mr. Richardson recently issued a study on behalf of Fred Bergsten and the Institute which found that up to \$30 billion per year in lost exports can be attributed to export controls. Given our concern with unemployment in general, and the loss of high paying jobs in particular, any-

thing approximating the loss of \$30 billion in exports must be addressed immediately.

Mr. Bereuter.

Mr. BEREUTER. Thank you very much, Mr. Chairman, for the hearings.

We are engaged in important discussions and hearings on these issues. I look forward to the testimony of my colleague from the 96th Congress era vintage, Bill Thomas from California, and other witnesses here today.

Mr. GEJDENSON. Thank you.

Mr. Thomas, please proceed.

STATEMENT OF HON. WILLIAM THOMAS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. THOMAS. Thank you, Mr. Chairman. As a member of the Trade Subcommittee of the Ways and Means Committee, I, too, share your support for our examination of the export controls. I was not so sanguine about the application of them during the so-called cold war period in terms of what we were actually losing in allowing a greater and freer trade on high-tech materials.

Obviously, some had to be strategically important and others were not. It allows us now to do a more comprehensive evaluation without that potential threat.

But I am here for another reason. It has to do with my district and my, over the years, gradual understanding of the economics of oil. It is an area that I believe most Members of Congress are not as familiar with as we probably should be, as is the case in a number of economic areas.

The area that I represent in California, principally Kern County, produces more than half of the oil of the State of California.

Putting it another way, if Kern County were a State, Alaska, Texas and Louisiana would be the only States that would out-produce Kern County in terms of the amount of oil produced every year. We have enormous production. We have enormous reserves.

Unfortunately, most of the oil produced in my district has a relatively low specific gravity and a relatively high sulfur content. That means it is thick and sour. That means that it doesn't flow readily like Middle East oil or even Gulf State oil.

In essence, you get it out of the ground by heating it and bringing it up. That gets you into the whole area of tertiary recovery. There is even a quaternary recovery procedure. There are even areas near the coast where they mine oil. It is so asphaltic you can haul it away in trucks rather than it appearing as the classic gusher coming up out of the ground. However, it is important to remember there are enormous reserves of this oil, billions and billions of barrels of this oil.

When the Congress, in its wisdom—and I guess I would put quotes around the word "wisdom"—in the early 1970's decided to develop the North Slope with the understanding that all of the production of Alaskan North Slope oil would be required to come to the States, unless a whole list of requirements that are virtually impossible to meet, were met, we began to affect the economics of oil production in the United States.

California and the Western States are an isolated market. They do not impact on the price of oil either in the Gulf or on the East Coast. The argument initially that I heard most often for prohibiting the export of North Slope crude oil was for independence, for security, for maximizing the use of American oil; if we are going to produce it, we are not going to let foreigners benefit from this oil; only Americans are going to benefit.

After almost 20 years of this current policy, the numbers are in and it is quite clear Americans are punishing themselves by maintaining the requirement that Alaskan North Slope oil has to come to the United States.

Let me tell you why. Alaskan oil is similar to California oil. It is relatively expensive to produce but, more importantly, it costs a lot to ship it. I know there are some jobs benefiting from the Jones Act requiring American bottoms, maybe 1,000 or 2,000 jobs. There is some fear that all of those jobs would be lost. That is not the case. There would still be considerable traffic up and down the coast with oil.

But when you have half of the oil coming into California from Alaska, you tremendously depress the California market. Those who would be producing become marginal producers. What would be the actual cost of oil is driven down by the mandated introduction of Alaskan oil equaling 49 percent of the consumption of oil in California.

What is my evidence for that? Take a look at the Department of Energy's management of Elk Hills. They wanted to sell Elk Hills crude on the open market in California, take that money and then initially invest in the Strategic Petroleum Reserve by buying local oil to fill that for other good and useful purposes.

When they advertised the price of Elk Hill oil, they were getting bids around \$9 and \$10 a barrel. They believed it was worth \$13 or \$14 a barrel. It is, absent the Alaskan oil. But given the glut on the California market, it is worth about \$9.50 to \$10.

So what the United States has been doing is sending 20,000 barrels worth of Elk Hills oil to the Strategic Petroleum Reserve. They would send more if they could. That is the maximum capacity for the west-to-east oil line right now. They have been shipping the crude oil to the Strategic Petroleum Reserve to put in the ground because they don't believe they can recover what their oil is worth on the domestic California market.

The reason they cannot is because of the required introduction of Alaskan North Slope oil. If you wanted to move Alaskan oil to the Gulf States or to the East so that those regions could get the benefit of American production, you will pay a \$1 to a \$1.50 to get it down to California. You are going to pay *another* \$1 to get it through the Panama Canal. You are going to pay *another* \$3 to get it over to the Gulf states, so you have priced yourself out of the Gulf market.

If Alaskan oil was allowed to find its economic home, for transport costs of 50 cents to a \$1, you could move it to Japan. The Mid-east oil Japan is now consuming would be available to Europe. The North Sea oil would then be more available to the East Coast. The world oil market is a fungible one and it would move.

We are distorting the economics of oil by requiring American consumption of North Slope. More importantly, it is costing us a lot of jobs; 5,000 to 15,000 more jobs could be added.

We would have continued and increased oil production in California. Why is that important? Why should we use up our reserves in California when we are trying to use other locations? It is very simple. Go back to the kind of oil that is being produced in California.

It requires expensive recovery procedures. In essence, you have to heat up the oil field, which is primarily sand, with some oil in it. Then you begin the extractive process. It is almost like a vacuum operation, forcing that oil up through the heated operation. If you ever shut one of those wells in, if you even slow down production, if you cool off the bed, you cannot then reheat it and recover the same amount of oil.

We are losing proven reserves by our failure to produce at what is called the maximum efficient rate. We are not getting 80 or 90 percent of the oil out of the ground. We are getting 50 and 60 percent of the oil out of the ground.

When you shut in stripper wells, when you shut in marginal production wells, you will never reclaim them for production. We are currently, because of the ill-advised policy of requiring Alaskan oil to come to California, not only costing us net jobs, not only depriving the consumer of a cheaper product, but we are squandering our proven reserves by maintaining this policy.

Finally, after 20 years, when you are going to be examining this question, I hope the true economics of oil are represented on this subcommittee and committee when you begin to make the decision about whether or not you renew the exclusive requirement that Alaskan North Slope oil must come to the United States.

It is depressing the market. It is depriving both the government and the private citizen of oil at a reasonable price. It is costing us jobs. Most importantly, we are squandering our natural resources. Ultimately, we are not producing the amount of oil from our proven wells that we would otherwise produce because of the induced false economics of government policy.

Thank you, Mr. Chairman.

Mr. GEJDENSON. Thank you. Are there any questions?

Mr. Bereuter.

Mr. BEREUTER. No, thank you, Mr. Chairman. I appreciated the education. I will yield to my colleague from California.

Mr. GEJDENSON. Mr. Rohrabacher.

Mr. ROHRBACHER. Mr. Thomas, how much is it estimated that this is costing the producers in California, this distortion that you are talking about?

Mr. THOMAS. You can look at the cost of jobs anywhere between 5,000 and 15,000. You can look at 150 million barrels of oil that are currently selling for around \$9.50 or \$10 that could be selling for \$13 to \$14 a barrel. When you begin to add it up, the economic impact in terms of jobs and actual cash value grows significantly.

In addition to that, there is another impact: you don't get the same amount of gasoline out of different kinds of barrels of oil. Each barrel contains 42 gallons of crude, but the lighter, sweeter crude produces more gasoline per barrel.

What we get out of Alaskan oil and California oil is far more left-over product; light lubricants come off and then you have gasoline. Residual oil, by its name, residual fuel oil or bunker fuel is produced in large quantities. That is a very cheap commodity and it is hard to get rid of.

It is difficult for us to move the full universe of products that are produced from this kind of oil. In addition to that, it requires special refining processes, so dollars are added to the cost all the way along the line if we bring literally half of the oil consumed in California from Alaska.

Mr. ROHRBACHER. So, if we let the market work, the oil would find its own level on the East Coast and the West Coast, and it would be cheaper for the American consumer?

Mr. THOMAS. It would ultimately be cheaper. The cost of gasoline might go up a penny or so, to be honest, in California, but the ability to maximally use the reserves is far more significant instead of leaving oil in situ.

It makes no sense to do that, first of all. Secondly, you will have an enormous bump in the job opportunities which we know is very important in California. Some people, I think, are motivated by the thought that they would lose the maritime jobs by virtue of the monopoly of moving the Alaskan oil down.

The Alaskan North Slope oil would still in part come to California. There would not be a *complete* shift of the destination of that oil. What I am asking for is not a mandatory shipment outside of the United States, it is to let economics dictate where that oil goes. Sometimes it would come to California. Sometimes it would move to Japan. What it would do would be to remove the government control of the economics of oil.

Mr. ROHRBACHER. Thank you very much, Mr. Thomas.

Mr. GEJDENSON. Thank you. Ms. Cantwell.

Ms. CANTWELL. Thank you, Mr. Chairman.

Mr. Thomas, it is a pleasure to have you here this morning. I am a new Member of Congress, but it is my understanding that you offered this language to change the Export Control Act at least a couple of times. It seems maybe that Congress views this a little differently than you as far as protecting our national interest.

Can you tell me what this discussion has been like in the past and why it has not succeeded in going through Congress?

Mr. THOMAS. Yes. I began introducing it once I fully understood the economics of the oil situation and the impact of the Federal legislation. The process has been a very positive one because we have continued to educate people about the true economics of oil.

Just as you indicated that you are a new Member of Congress and perhaps have not had a chance to fully appreciate the interaction of oil market production, type of oil, and the role of government. This is a different chairman than I was in front of earlier. Both the chairman and the ranking member of the committee, as a matter of fact, have left.

So what I am doing is continually reeducating people who are on this committee who have the ability to make decisions and other Members of Congress, and there have been some residual benefits from that because more and more members now, I think, have an appreciation of the economics of oil, much more so than they did

in the 1970's when they made the decision, which on its face appears to be a good one. But when you analyze its consequences, it clearly is not a good decision in terms of jobs, in terms of resources and in terms of national energy policy.

Ms. CANTWELL. Wouldn't you say, though, Mr. Thomas, that there is some difficulty to the standard or the oil product that you are talking about in marketing it in and of itself regardless of the Alaska question?

Aren't there some questions here about the product and how successful it would be?

Mr. THOMAS. As I indicated earlier, the oil is not like the light, sweet crude from Saudi Arabia which is the best oil in the world. It has some sulfur content. It is relatively thicker in terms of the specific gravity.

Most of the refineries on the West Coast have been adjusted to handle heavy crude by virtue of the production that is in the Lower 48. So the Alaskan North Slope oil is handled relatively easily.

The alternative market would principally be Asia, some would go to Korea, most would go to Japan, possibly eventually some would go into China or Taiwan. Remember, we are only talking about 150 million barrels of oil, so that you don't have this enormous flood that is going to occur in the market.

We are talking about operating only the margin. We are talking about moving some quantity of oil somewhere other than the West Coast. Any relief of half of the quantity of oil coming from Alaska would be a significant boon to the California market which, as I said, is an island. The Alaskan oil that comes to California stays there. It depresses the production in California. Because of the cost of moving that oil, it doesn't move to the Gulf States nor does it benefit people who want oil on the East Coast.

It simply does not create the economic dynamics that I think the people who advocated it in the first place thought that it would and it won't because of real world economic dynamics.

Ms. CANTWELL. Well, the dynamics you just said may be an increase in gasoline prices in the State of California.

Mr. THOMAS. To put it honestly, you would have a *real* price for gasoline instead of a *depressed* price for gasoline. Just as the government with its ability to move oil out of that market—20,000 barrels a day the government has been pulling out of that market, if they could pull out 50,000 barrels a day, I think you will find the government would testify they would pull out 50,000 barrels a day, because the price of oil is artificially depressed by another government policy.

So if you lift the government policy and the oil found its true economic home, you would not have an artificial glut. Therefore, you might have a slight increase in the cost of gasoline, but it would be the true return on the cost of that gasoline.

That means the wellhead price of oil would go up from \$9.50 to about \$12 or \$13 or \$14, which is what the government thought its oil was worth, and probably what it would be worth in a free market situation. You would then have 5,000 to 15,000 back to work. You would have production up. You would be using the natural resources that are there at an efficient rate.

If all that occurs because gasoline finds its real world price of a penny or two more, I think it is worth it.

Ms. CANTWELL. Thank you, Mr. Thomas. I do disagree with you on your premise. Perhaps we can sit down and have a discussion about it.

Mr. THOMAS. I would very much like to have you look at the numbers, especially since the administration has allowed the export of California oil. Before, there was a ban on the export of Alaskan oil. They tried to relieve it in part with an export of California oil. They are pulling oil out of that market and, as I said, they would pull more oil out if they could. It is all because of government policies that were put in place over time that distort the market.

Ms. CANTWELL. I think you are painting a picture of some things that may or may not have correlations, but I would love to talk to you about it.

Mr. THOMAS. I would love to talk to you about it, because I think you will find that once you understand the whole picture, not only do they have a correlation, they have a direct impact. The direct impact can be changed by allowing Alaskan North Slope oil to find its economic home.

If it is Washington or California, I am all for that. It should go where it should go, not to where by government edict it *must* go.

Ms. CANTWELL. Well, there are policies on a variety of issues that are in national interest. Maybe we can talk about how you view national interests.

Thank you, Mr. Chairman.

Mr. GEJDENSON. Thank you, Mr. Thomas.

Mr. THOMAS. Thank you.

Mr. GEJDENSON. One of our colleagues, Mr. Edwards from California, I believe, has a statement.

Mr. EDWARDS. Thank you, Mr. Chairman. Thank you, Mr. Thomas, for your valuable testimony. I have to go because we are starting hearings, to everybody's delight, on term limits this morning. I am chairing the subcommittee with great enthusiasm, of course.

But I do want to congratulate you, Mr. Chairman, on the work the subcommittee is doing insofar as export licenses are concerned. If the situation has improved immeasurably, a lot of it had to do with the work of this subcommittee. However, there is a long way to go.

In your big bill next year, Mr. Chairman, I hope that you will take a good look at the testimony that I offer for the record today. It is very important to require the Secretary of Commerce to make an annual, forward-looking report on the level of technology widely available all over the world, otherwise we are behind.

We are requiring export licenses for computers and other high technology goods that are available all over the world if legislation today is enacted. The Secretary of Commerce would, by law, make an annual forecast of where U.S. export controls should be. Otherwise we are going to lose sales all over the world.

With that, I thank you. I do have to rush off. I appreciate your courtesy.

[The prepared statement of Hon. Don Edwards appears in the appendix.]

Mr. GEJDENSON. Thank you.

Our first witness in the next panel is David Richardson of the Institute for International Economics. Your entire statement will be placed in the record. Please proceed as you are most comfortable.

STATEMENT OF DAVID RICHARDSON, INSTITUTE FOR INTERNATIONAL ECONOMICS

Mr. RICHARDSON. Thank you, Mr. Chairman. It is a privilege to be asked to testify before you and it is a special privilege to be asked to set the stage for today's hearings.

I am the author of a recently published study by the Institute for International Economics. The study is called "Sizing Up U.S. Export Disincentives". It is a book-length study, about 200 pages.

The most significant of the various export disincentives I tried to quantify is export controls. I think you are not surprised by that. I think that is old news.

What is new news from this study is the size of the effects of export controls. It is much larger than most experts that I surveyed thought. The incidence of the effects of controls on the U.S. economy is, in my mind, much more disturbing. The size and incidence of export-control effects on exports are disturbing for jobs. They are disturbing for growth rates in the United States. They are disturbing for technological dynamism.

Let me begin by overviewing the findings of my study. I found that broad national security export controls—prior to the recently proposed liberalization—almost surely cost the United States \$20 billion of exports annually and could cost the United States as much as \$30 billion of exports annually.

I found that over half of these estimated export losses came from high technology sectors, well over half for certain ranges. These high technology sectors are machinery, instruments, electronics, and transportation equipment.

These sectors are growing especially rapidly in global trade. These sectors are those in which the United States has a very strong, natural, competitive advantage. The jobs that one might associate with these sectors, according to other studies, are especially high value jobs. I conclude that export controls have foreclosed high value jobs to Americans at the expense of giving them low value jobs in other sectors.

I found that export controls have a disproportionate impact on small firms that are unable to bear large up-front fixed costs of maintaining export control procedures, and that are unable to source from overseas affiliates with the ease that large firms can, sometimes to avoid export controls.

I found that even large high technology exporters are probably made smaller in size by these export controls because export controls foreclose markets to them, and their cost competitiveness, therefore, suffers all over the world. I call that contagion losses.

I don't try to estimate the size of these contagion losses. So, if anything, my \$20 billion to \$30 billion figures are understated to that extent.

I calculate that over half of U.S. export losses from export controls fall on just five States. California is the most significant of

those States, accounting for one-fifth of the U.S. exports in the sectors most affected. The other big four States are Texas, Washington, Michigan and my own State, New York.

Now that is an overview of the quantitative results.

I want to hasten to add that this book is devoted primarily to the export *costs* of export disincentives like export controls. It is *not* a full *benefit/cost* study. I make no attempt to assign dollar values to what I view as very valid and very important national security benefits of export control and other policies.

I don't think anyone doubts the benefits of national security objectives, broadly speaking. I don't think anyone doubts that the sacrifice of some exports makes eminent sense when it can buy national and global security. I don't think anybody doubts that export controls made a contribution to the demise of cold war rivalry.

But I needn't tell you that the world has changed. Sourcing capability has grown for dual-use products. Our allies have become increasingly impatient with the export control regimes that we and they belong to. Consensus in those regimes is slipping. Most important, I think you know very well that it is no longer clear that export control is, in fact, an effective way of dealing with weapons proliferation and other concerns.

Various means of control over end uses and end users is by far a more promising instrument than export controls are. But I needn't tell you either that the world was not changed in certain parts of Washington, and that parts of the American Government still maintain almost reflexively that unilateral denial of exports is a desirable way to show leadership against weapons proliferation and against other abuses.

I don't agree with that, as you will see when I get to recommendations. Therefore, I applaud the recently announced intention of the Clinton administration to negotiate more liberal export controls on computers, on telecommunications equipment, and perhaps on other goods. I think that is a commendable accommodation to the new regime of global security. I think that it is a significant reassertion of U.S. policy concern for economic security, as well as for broader national security. I maintain, therefore, it is a commendable reassertion of U.S. global leadership in the broadest and most effective way that we all want.

But my study concludes that the cost to American exports of attempting to maintain moral high ground on export controls is much larger than people realize. Therefore, I am going to recommend to you that the best unilateral policy is abstinence.

I would recommend that our Government should, at the very least, be required to file annual reports in a timely way on export-control-related sacrifices of exports, what it means for the domestic economic momentum of sectors where export controls hit, and what it means for high quality jobs.

I would maintain and recommend to you that our Government simultaneously publish assessments of whether the vital policy objectives of these controls are in fact realized or whether they are mere moral posturing.

I think it is notable that these same recommendations come to you from your own Competitiveness Policy Council. These same recommendations come from National Academy of Sciences panels

that have been convened over the years. I have a feeling that many of you are already sympathetic with these recommendations.

No one argues for mindless mercantilism. This study is not that. In fact, contrary to export controls, I find very few regulatory barriers that have much effect on our own exports. Neither environmental barriers nor tax barriers, in my calculations, seem to affect overall U.S. exports very much. I mention that to you to add perhaps some credibility to my calculations for the thing that does seem to matter, namely, export controls.

I think the United States has been much too nonchalant about its exports. I think many of you know that exports have become a leading engine of American economic growth, not only in their own right, but also for the favorable effects they have on other sectors.

I think strong export performance is a catalyst for strong overall performance. Again, the administration seems to agree, with its new national export strategy recently proposed by the Trade Promotion Coordinating Committee.

Now that is an overview of the study and my recommendations. I was asked by you more specifically to comment on the effects of export controls on industry and jobs, on whether trading partner have similar controls.

Let me address those issues at this point.

My study, as I have said, finds that export controls are an especially potent export disincentives in high technology sectors. The reason for this is, in part, that high technology sectors require large up front fixed costs, fixed costs that we associate with research and development. These are costs that need to be spread across large volumes of sales. These are costs that cannot be very easily passed along to customers, to workers, to suppliers, not nearly as easily as regulatory costs and other kinds of costs can be passed along.

This is the reason why I find that export controls, as they foreclose markets to American exporters, have the pernicious tendency to reduce American competitiveness in both controlled markets and in uncontrolled markets as well.

The reason is that the fixed costs cannot be as broadly spread across world markets. Average costs rise; cost competitiveness falls. This also helps to explain why, when our export controls require both special departments and sometimes even special design features, they are more potent than other kinds of export disincentives.

For example, I find that 1991 U.S. exports shortfalls, the most recent year for which the data I use are available, are especially large—the shortfalls for CoCom-targeted countries in transportation equipment, instruments and high technology machinery. Specifically, I find that the United States was able to export only one-fifth of its potential in these high technology sectors to CoCom-targeted countries in 1991, whereas we were able to export one-third of our potential in all other sectors than these high technology sectors.

The gap, one-third versus one-fifth, is a significant one when you cost it out in dollars. By comparison to that, our European CoCom partners and rivals had both smaller shortfalls in 1991 and shortfalls that were much more balanced between high technology sec-

tors and other sectors. They did not have an unduly large shortfall in high technology sectors as we did. For example, German exports in 1991 to CoCom targets were about two-fifths of their potential in all sectors.

Mr. GEJDENSON. Can I ask you, how much longer is your statement? A colleague is coming who wants to make a statement and we do have a number of panels. How much longer do you need to finish?

Mr. RICHARDSON. About 5 or 6 minutes. I would be happy to interrupt it.

Mr. GEJDENSON. All right. Why don't you finish and then we will have Chuck Schumer make a statement and then we will go to questions.

Mr. RICHARDSON. Fine. There are two further effects from export controls that I think are quite serious. Because of the way in which they work in foreclosing markets, they undermine dynamic impetus and the incentives for research and development. There is two ways that happens.

Within each firm, export control costs, in essence, compete with other fixed costs like research and development. By competing for the fixed cost dollar, less research and development is done.

Second, among firms, fixed costs of export control procedures make it difficult for new small firms to even consider exporting. To the extent that new small firms are foreclosed from export markets, they are also foreclosed from earning any revenue on research and development which *they especially* turn toward innovation. Large firms maintain safer kinds of research and development.

With regard to jobs, the study argues that rather than affecting the overall number of jobs, the most important effect of export controls is on the types of jobs that Americans occupy.

Export-related jobs in the most affected sectors are on average higher skill, higher pay, higher mobility jobs. They are the high value, the high-reward jobs everyone prefers. They are places to absorb cutting edge technological training because American exports embody the fruits of American human capital. American human capital still leads the world in areas like aerospace engineering, medical engineering and software engineering.

So the unfortunate effect of export controls, in my calculations, is to dumb-down the array of jobs available to Americans. It happens naturally because exports in the presence of export controls are a smaller share of U.S. activity, and it happens derivatively because exporters often find it more attractive to source their products from overseas affiliates, thereby employing overseas nationals and not Americans.

I have a section on principles of policy reform which I will abbreviate in order to finish in the time I said. Some of the proposals I make are very familiar. They merely reemphasize proposals made by many august groups in regard to export controls.

They focus on multilateralism. They focus on increasing sensitivity to economic security. They focus especially, however, and perhaps uniquely, on the importance of calculating foreign availability.

Foreign availability reports, in my judgment, need to be made more timely, more accurate with easier access, more regular, and

need to shed the backward-looking character that they have right now. Some people call them tombstone reports, as you know.

One of my recommendations is that in renewing the Export Administration Act, we require timely annual reports on the quantitative effects of U.S. export controls, taking account of foreign availability especially.

I think we recognize that when foreign availability is determined, then we gain no additional national or global security by maintaining export controls. I think we agree that the first, best policy is to encourage those uncontrolled suppliers to join our multilateral control regimes, to create incentives for them to do so, and to create sanctions for them not doing so.

I recommend such incentives and sanctions. But if they fail, I recommend not continuing to shoot down our exports for no reason.

Finally, I recommend to you that the renewal of the Export Administration Act should indeed increase the target effectiveness and predictability of those controls that remain precisely in order to raise economic security from its low level in historic export controls and restore American leadership through *both* economic and security channels.

The mechanisms by which this can happen, I think, are reassignment of certain kinds of end use and end user monitoring from the firms in which they are now housed to agents for which these responsibilities are more naturally assigned. Certain American Government agencies are by far the competitive suppliers of intelligence. I think we could make use of that in various ways described in my study. I recommend official support, secondly, for technological innovations in intelligence capability. I recommend that we explore ways to make intelligence and monitoring of end uses and end users multilateral functions in new regimes.

The administration seems poised to undertake an imaginative program of export-centered growth. I think minimizing the drag of export controls on our growth is a crucial part of that program. I think the new Export Administration Act is the prime vehicle for minimizing that drag.

I commend your efforts in rewriting it. I wish you success.

[The prepared statement of Mr. Richardson appears in the appendix.]

Mr. GEJDENSON. Thank you very much.

Mr. Schumer, do you want to come up and testify and then we will go back to question Mr. Richardson.

Mr. Schumer, your entire statement will be placed in the record. Please proceed as you are most comfortable.

STATEMENT OF HON. CHARLES SCHUMER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. SCHUMER. Thank you very much, Mr. Chairman. I appreciate the opportunity to testify. I want to thank you for holding this hearing on the antiboycott legislation of the Export Administration Act, among other things. The hearing comes at a particularly timely period in terms of the boycott. It has been 2 years since the subcommittee held its first hearing on the Arab boycott.

Some of the export enforcement changes resulting from that hearing are apparent today. It is also, of course, 2 months since the

Israel-PLO peace accord and an appropriate time to assess whether this agreement has had any effect on the worldwide boycott.

Before I start, I would like to commend you, Mr. Chairman, for the leadership you have shown on this issue, not only in calling these hearings, but in the legislation you have authored and supported to bring it into the boycott.

We all know that the Arab nations have tried to boycott economically and strangle the State of Israel since its birth. It targets not only Israeli companies, but any company that does business with Israeli companies.

The problem is that last year alone U.S. companies reported receiving 9,912 boycott-related requests from foreign companies. So it is not a problem that is fading away. The boycott is alive and well.

In the days following the Israeli-PLO peace accord, the administration and Congress called on the Arab nations to finally declare an end to the boycott. For many years many of the Arab League nations told the United States the boycott was based on their opposition to Israel's policies in the West Bank and Gaza. Since presumably that reason is gone, now other pretexts might get in the way and the boycott continues as aggressively as ever.

The same thing is true with U.S. companies as it is for Israel. Despite the fact that we went to war to defend Saudi Arabia and Kuwait from Saddam Hussein and despite repeated appeals from the Clinton administration to these allies, U.S. companies continue to be subject to discrimination. 8,628 boycott-related requests have already been reported to Commerce through September of this year.

That is a 16 percent increase over last year at this time. This is despite the public assurances from our two largest Arab trading partners, the Saudis and Kuwaitis, that they are dropping enforcement of the secondary boycott against U.S. companies.

In fact, the preliminary figures indicate that the Arab boycott activity by Saudi Arabia may be on the rise, according to the new Commerce Department statistics. The number of illegal boycott requests made by the Saudis to top U.S. companies this past quarter rose by an alarming 25 percent over the same quarter last year.

During the quarter ending September 30 of this year, 314 requests were received by U.S. companies, 64 more than in 1992; and the overall boycott requests made by the Saudi from January to September was up 8 percent.

The economic injuries to U.S. companies, of course, is difficult to estimate. The true number of companies that never even attempt to do business with Israel because of fear of the boycott until now has been no more than speculation.

But soon we may have a better idea. U.S. Trade Representative Mickey Kantor has asked the International Trade Commission to calculate the damage the Arab boycott causes U.S. business and the result of this study could lead to the possibility of trade sanctions, perhaps the best way to let the Arab League know we mean business.

I feel this study is perhaps the most important step the administration has taken recently to up the ante and let the Arab League know that they will have to pay a diplomatic price if they continue to press the boycott.

The administration should be credited with another recent success. As a result of administration lobbying the weeks following the Israel-PLO agreement, the Arab League boycott meeting schedule for October 24 where they take up new complaints and new companies was indefinitely postponed.

These are the types of actions the administration needs to continue to take, not just raising the issue of boycott in the course of diplomatic interaction, but insisting on real and definite progress.

Well, at the same time, Mr. Chairman, that we need to raise this issue abroad, we need to strengthen our enforcement boycott laws at home.

When the subcommittee held its hearings in 1991, I announced the results of a study that I had completed that was harshly critical of the way the Commerce Department's Office of Anti-Boycott Compliance carried out its mission.

As a result of that report and this subcommittee's and its chairman's work, some improvements are in evidence today.

In 1991, I pointed out the number of consent agreements obtained by the OAC, representing the number of companies which agree to pay fines for boycott compliance, had dropped steadily over the years, from 46 in fiscal year 1987 down to 21 in 1990. But in 1992 the number of consent agreements was up to 30, and 37 have been reached so far this year.

Charging letters are up. Fines are up. Staffing and export is up. Denials are up and so are criminal referrals to the Justice Department, they are up, too, although there are only five of them this year. But I think that is major progress.

So we have some positive signs. Additional steps are still needed. Here is what I believe ought to be done: the maximum penalty level, currently \$10,000 should be increased to \$50,000.

Second, Commerce should coordinate the actions more effectively with the Justice Department so more criminal referrals are possible and so that more of the cases referred are ready for Justice Department action.

Can it be that only five cases out of the tens of thousands of requests since 1991 were worthy of Justice Department referral? I doubt it.

Finally, I recently introduced a bill that would strengthen the antiboycott enforcement provisions of the Export Enforcement Act by giving victims of boycott discrimination the means to recover damages suffered as a result of this discrimination.

The bill, H.R. 2544, creates a private right of the action that would permit a company which loses business or an individual turned down for a job to bring a suit. This measure would not only bolster effective enforcement of the boycott laws, but it would compensate those who suffer economic injury.

In closing, again, I would like to take the opportunity to correct the public record. Administration officials and editorial writers have recently been referring to the boycott as an anachronism. I must point out that an anachronism is something that once had a proper role and a legitimate purpose.

The boycott never has. It is a form of invidious discrimination and should be eliminated as quickly as possible. It is as offensive today as it was in its inception and with aggressive pressure from

the administration and guidance from this subcommittee, I think the Arab boycott can and must be brought to an end.

I thank the subcommittee for their time.

[The prepared statement of Mr. Schumer appears in the appendix.]

Mr. GEJDENSON. Thank you, Mr. Schumer.

I would like to thank you not just for the work that you have done today, but for the work that you have done over the years on this issue and so many others. You can be assured this subcommittee, as we take up the new Export Administration Act, will take your recommendations very seriously.

Are there any questions?

Mr. ROHRABACHER. Mr. Schumer, do you think that events may determine that we don't really have to move forward on this?

Mr. SCHUMER. I am hopeful of that. Certainly the President has done a good job putting the boycott on the agenda as Israel negotiates not only with the PLO but its other Arab neighbors. Unfortunately, the results have been somewhat disappointing.

It seems to me that if the PLO and the Arab world says, "OK, we are willing to recognize Israel," then the first thing they should do is stop the economic warfare. Right now there is not military warfare, at least, from them. But there is economic warfare. I think we need to keep vigilant and keep pressing.

Mr. ROHRABACHER. All of us join with you in the hope that the Arab countries will eliminate their boycott and that we are in the middle of a historic shift in policy in the Arab countries and this legislation that you are talking about will be found to be not necessary.

Mr. SCHUMER. Thank you. I appreciate it Mr. Rohrabacher.

Mr. GEJDENSON. Mr. Roth.

Mr. ROTH. Mr. Chairman, I agree with Mr. Rohrabacher and I am delighted to have our colleague, Mr. Schumer's testimony this morning. I think you are right on target, as you are in some cases.

Mr. SCHUMER. From you I consider that great praise, Mr. Roth.

Mr. ROTH. I would like to take a minute to say that this is an historic week not only because of NAFTA, but 2 days ago in a small town outside of the Hague the CoCom was finally approved, the demise of CoCom. It will go out of existence in 4 months.

To put that in perspective, we have had a national fixation on NAFTA, but the end of CoCom will have a bigger impact on trade and a bigger impact on American jobs than NAFTA ever will.

That is why Professor Richardson's new study is so important. I am glad that he is here today. I had another meeting and I could not be here for the testimony. But I did have a chance to review it, Professor Richardson. The end of CoCom underscores the importance of our subcommittee's work.

We need to establish in law new principles for any remaining export controls. That is the purpose of the bill that I and Mr. Oberstar introduced a few days ago with the blessing of our chairman. To me the big danger is not that our bureaucracy will resort to unilateral controls like the fiasco with the recent China sanctions.

If the U.S. Government is tougher than other governments, it will not only disadvantage our exporters and do nothing about proliferation, but I think it is going to take some real review on our

part to make sure that with the demise of CoCom that we finally allow our exporters to export and allow our economy to grow.

Mr. GEJDENSON. Thank you. Mr. Manzullo.

Mr. MANZULLO. Mr. Richardson, we appreciate your lending your scholarship to what is a very difficult and technical area.

I would like you to take a minute or so to elaborate on the real scope and breath of the areas of manufacturing that are really effected by lessening the controls on computers and telecommunications. Do you understand my question?

Mr. RICHARDSON. What the possible spillovers are from computer liberalization to other sectors?

Mr. MANZULLO. Right, and telecommunications.

Mr. RICHARDSON. Well, I can begin certainly by talking about the education sector in which our mechanisms for both teaching and doing research are incredibly enhanced by the availability of computer and telecommunications equipment.

I think most people who study the industries find that the spillovers to productivity in the entire economy are very large from being able, in computers and in telecom equipment, to have large productive sectors and easy access to a wide range of goods in these sectors.

I don't have a number for you on that. Some of the studies are just now being done. But it increases greatly the productivity, and reduces greatly the real costs in other sectors to have these technologies and goods available.

Therefore, I view as particularly pernicious any holding down of our ability to produce them and to consume them.

Mr. GEJDENSON. Are there any other questions?

Mr. Roth.

Mr. ROTH. I would like to ask the professor just one question. With the demise of CoCom, do you see us reverting back to unilateral controls? And couldn't they be even more harmful than the situation that we had before?

Mr. RICHARDSON. My opinion from what I know, Mr. Roth, is that we will attempt very hard to negotiate a new regime that will cover all manner of proliferation issues and perhaps other things as well. It will have a different name and will be the modus by which we attempt to make all controls multilateral.

I worry that our ability to persuade our potential regime partners is diminished to the extent that our economic strength is diminished. I think that we need to be quite realistic about the ability we have to promise potential regime partners favors economically. That is related to how strong we are economically.

Therefore, I think what is likely to happen is that if we are strong economically, we will succeed in replacing CoCom with a new multilateral regime that has both economic and security properties.

But if we are weak economically, we will fail at convincing potential partners to join us in a multilateral regime. It is then that I fear that we will resort to unilateralism and that will weaken us still further.

Mr. ROTH. In the long run that would be even worse?

Mr. RICHARDSON. That is what I think.

Mr. ROTH. I agree with you. It seems like when you have a bureaucracy, it is a hydra-headed monster. You can never do away with it, but I think that is why we are going to have to have some political will to cut back on government.

It seems to me that, as you had mentioned, the visual resurfacing, I hope we can have your continued advice as we go along in this area to make sure that we have more exports and not less in the future.

Mr. GEJDENSON. Mr. Richardson, what do you estimate, not the lost business opportunity, but the cost of compliance is with present export licensing and processing?

Mr. RICHARDSON. It has been greatly reduced, our cost of compliance in current figures. I think you have heard from Commerce representatives that the license applications are down in percentage terms.

However, I think that the hidden costs are still fairly high, those that discourage small firms from even setting up export divisions because they cannot afford even the smaller compliance costs, and those that discourage many firms from exporting to a suspect destination if they need to spend great amounts of resources on monitoring what the use of the export is or who the buyer is.

So the current costs are reduced, but I think they are still significant. We should not shrug our shoulders at them.

Mr. GEJDENSON. Thank you, Mr. Richardson. If it is OK with you, we will submit additional questions to you in writing because of time constraints.

Mr. RICHARDSON. Thank you for the chance to testify.

Mr. GEJDENSON. The next panel brings an old friend back to the committee, Paul Freedenberg, on behalf of Computers, Business Equipment and Manufacturers' Association. It is good to have you back.

Mr. Freedenberg, please proceed. All your statements will be placed in the record.

STATEMENT OF PAUL FREEDENBERG, INTERNATIONAL TRADE CONSULTANT, BAKER & BOTTS, ON BEHALF OF COMPUTERS, BUSINESS EQUIPMENT AND MANUFACTURERS' ASSOCIATION

Mr. FREEDENBERG. Thank you, Mr. Chairman.

At the dawn of the atomic age Albert Einstein said, "Everything has changed about the world except the way we look at it." The same could be said for export control policy today.

You are about to begin a major rewrite of the Export Administration Act at a time of profound change. One strong indicator, as Mr. Roth just announced, is the demise of CoCom and the fact that the Russians are about to join CoCom as partners. Of course, we are not sure at what level of partners.

Also, the fact that since I used to run the export control system and now the Russians ask me for advice on how to set up theirs, we find a very strange world out there.

Mr. ROTH. I hope they listen to you more than your Congress did.

Mr. FREEDENBERG. I have not seen that their Parliament is particularly amenable to listening to Yeltsin's advice, so we will see.

Add to that the fact that technological change has, if anything, increased dramatically in recent years, and the result is a world which bears no resemblance to the one on which our export control policy was based for the last 44 years.

Mr. Roth, I cannot emphasize enough the danger of a lack of discipline in export controls. I think you hit on just the right point, which is what happens to the new regime if the United States continues to control at fairly rigorous levels and our allies do not.

I have been told that they have broken off talks on various lists and certain sectors, and they have given us take it or leave it positions on other sectors. We may be in a very bad position, because we feel for our own national security we must continue to control certain items. If our allies don't believe the same, it causes us enormous difficulties.

I am speaking on behalf of the Computer and Business Equipment Manufacturers Association whose membership includes our Nation's highest technology companies, accounting for \$270 billion in sales domestically and 4.5 percent of our country's GNP. They conduct 20 percent of our industrially funded R&D and they derive 50 percent of their revenue from overseas business. So they have a great concern. It is a bottom line concern on how you regulate exports.

I thought the most useful thing I could do is talk about the technological environment, particularly with regard to computers that has changed the nature of export controls.

The major point I would make is that the average shelf life of a computer is now under 18 months. Indeed, more than 70 percent of the 1992 revenues for the computer industry were from products that did not exist 2 years ago. That will go up to 80 percent by 1995. So we are talking about a very, very rapid turnover.

If you look at the new computer models that are coming out, they are coming out every 5 or 6 months with increases in speed. You have seen the statistics on how cheap an automobile would be if they were doing as well in performance as computers were. They would be 2 cents and get 100,000 miles to the gallon.

The point, however, is that the pace of change is, if anything, accelerating. I will get to some interesting statistics on that. That is why it is good that the President, in his TPCC export control announcements, made his policy on the basis of anticipating the new models of computers. He could not very well look at what was in existence at that moment, because that was changing even as he was making the announcement.

For example, the IBM Power PC-601 and the Pentium-based machines will be available by the millions around the world during this quarter of 1993 and all of 1994. These are desktop machines of enormous power and small size. Indeed, almost all of them would fit in an automobile trunk.

Given that small size and ubiquity, trying to control these machines at previous control parameters made no sense. So we have a major shift in terms of trying to anticipate foreign availability. There are other reasons, however, why the controls made no sense. I will briefly list them.

First of all, semiconductors are not controlled except to CoCom-proscribed destinations. These semiconductors very quickly end up

in clones, particularly, at the moment, in countries on the rim of the Pacific. Immediately, within a year of their announcement in the United States, these machines end up in Asia.

Secondly, the new PCs and work stations now appearing on the market permit less costly upgrades. So you have a machine that comes out, because they are coming out every 6 months in many cases, you have to upgrade them. You can now upgrade them by putting in new chips or just snapping in a new board. It saves money for the customer, but it also means that those boards can fit into briefcases.

So how can you control the speed of these machines? Remember, I used to be in charge of the export control enforcement system.

It was much easier when you had room-sized computers. You go see a Cray computer in those days, and it was a huge machine with cooling devices and special rooms. Now you are talking about a desktop machine with snap-in upgrades.

Third, we now have the advent of parallel processing. IBM is about to announce massively parallel machines. Remember, this is at a time when the Japanese still have not agreed to our increase from 195 million calculations a second. With these new massively parallel machines we are going to achieve within the next couple of years speeds approaching a CTP of 100,000. By the turn of the century it is predicted it will get to 1 million. That is 1 trillion calculations per second.

With that sort of power out there available, a supercomputer threshold of 2,000 seems rather modest. That also raises a question of how do you define a supercomputer in this type of environment.

Finally, adding to this explosion of power that is out there, computer networks are prevalent around the world and software engineers have made it possible to get even more power out of the existing machines.

You have what is called virtual parallel processing. That again allows anyone with an Unix-based machine to hook those up. The software for that is at no cost and without export control via Internet. You saw an Internet demonstration at your last hearing. You can get that sort of software via Internet. It is not controlled. You can hook into other machines and achieve the approximation of the parallel processing I just talked about.

So what do we do in this situation? CBEMA has a number of proposals.

The basis of the new export control system, we think, should be something which we call Proliferation Essential Products and Technologies. This has been also suggested by the Computer System Policy Project composed of the CEO's of the major computers companies.

They argue that the administration should identify these PEPT's where there is a direct and substantial nexus between a product or technology and proliferation. That should be one without which the end product of the proliferation cannot be made.

The key is that these products or technologies cannot be merely useful but necessary in order to be qualified as one of these Proliferation Essential Products and Technologies.

Finally, it must be controllable. That is why I get back to the announcement that Mr. Roth noted, which raises the question of how

is it controllable in an age when you don't have the discipline of CoCom? Remember, CoCom has a U.S. veto. If you don't have a veto, how do you stop others from exporting? You then get down to what I would say is "the kindness of strangers." You get down to hoping your allies will go along with a paper agreement. Maybe they will.

But as you remember, the CIA uncovered thousands of cases of machine tool cheating during the time when we did have CoCom discipline. Now we are not going to have CoCom discipline. It makes for a great amount of the difficulty, if not impossibility. We shall see what occurs.

If we do not adopt this new structure, CBEMA would recommend a number of measures. I will note them and we can talk about them in the Q&A session. We feel we obviously have to move away from the old East-West strategic context and into the new emphasis on preventing proliferation. But as long as we have a control organization, we see no reason whatsoever for any continuation of U.S. licenses required for CoCom, and there still are within the supercomputer context.

We would recommend ending the supercomputer regime altogether, given what I just talked about with regard to the new computer power that is available, particularly through networking.

We also endorse something which you have had already heard a statement on by Congressman Edwards. We endorse the idea of anticipatory foreign availability findings.

I would also note, by the way, that the Commerce Department is in the process of reinventing foreign availability into oblivion. They are down to less than 10 people. Since I still talk to some of those people, I see certain effects of the bureaucracy.

At a time when the Congress is calling for even more power and more analytical capability at the foreign availability section, Commerce has shifted most of the people out of that section. So, you cannot have what you are asking for if you don't have people to carry out those studies. Obviously, they can be farmed out, but it is a much more difficult thing.

Two other points: One is last year the committee adopted an amendment that would have decontrolled "mass market software containing encryption." CBEMA endorses this and recommends that it be in the EAA.

We would go further than last year's amendment by including hardware incorporating encryption algorithms performing at the same level of effectiveness as encryption software that has attained a mass market status.

I would note from my own clients that this is going to be an increasing problem. The new demands of the marketplace are for encryption. The market demands that this feature be available. This is not something which the U.S. Government wants to grant. What does that do to competitiveness?

I have a section in my testimony that talks about pushing this offshore. I know a number of companies are already talking about going offshore. I have no idea why we would want to push this offshore.

Why do we want to have these same activities that would be perfectly legal in the U.K. or France going on and going to the same

customers and maybe profiting U.S. companies, but profiting them offshore and giving the employment offshore makes no sense. It certainly will help the computer industries of those countries, but it certainly won't help our computer industry.

Mr. GEJDENSON. Let me interrupt you there. Clearly this is a case where there isn't a need for a massive physical construction or heavy capital equipment that is difficult to move. You can basically take your desktop or laptop and do it anywhere.

Mr. FREEDENBERG. Right, and you can link up. Remember, we have software being written right now in Bangalore, India and soon to be written in Moscow to be done for our major computer manufacturers. You don't have to move the individuals. You have to move the place where this individual work is done and the regulatory structure. That is not a hard thing to do, and it will encourage these people to relocate.

Remember, our software industry is one of our major strengths. We are pushing it away from our shores. Not only our software industry, but I might add in the case of California among other States, our semiconductor industry, because they are the ones who are also being asked to etch these algorithms on their chips, so that you don't even have to use software.

Finally, I would just note, and it seems almost an after-thought today, but it is true for every industry. We have had cases where special conditions are placed on licenses—and that really has hit the computer industry—through microcodes that are supposed to self-destruct the computer if you run certain programs.

It has hit the machine tool industry where they are asked to put epoxy in certain boards so they don't work. It has hit a number of other industries where they have to downgrade the quality of their product in order to get an export license.

Since CoCom will no longer exist as a disciplining organization, it would be very counterproductive for us to require our own companies to downgrade or alter their products as a condition for export, because that will make them obviously less attractive, and we will have no way of ensuring that other CoCom members do so.

That concludes my prepared testimony. I would be happy to answer questions.

[The prepared statement of Mr. Freedenberg appears in the appendix.]

Mr. GEJDENSON. Thank you. Mr. Connelly.

STATEMENT OF THOMAS T. CONNELLY, SENIOR VICE PRESIDENT, HARDINGE BROTHERS, INC., REPRESENTING THE ASSOCIATION FOR MANUFACTURING TECHNOLOGY

Mr. CONNELLY. Thank you, Mr. Chairman. The U.S. Machine Tool Manufacturers recognizes that exporting is essential to global competitiveness and to economic prosperity. For the third straight year, U.S. machine tool exports have reached a new high. In 1992 they were \$1.2 billion. In fact, exports have increased in each of the last 9 years and have nearly tripled since 1984.

So given these statistics, can we justify or accept an export control system in this country that is outdated and overly bureaucratic and actually retards U.S. exports?

This committee has a golden opportunity to make a significant contribution to increased U.S. exports, to economic growth and to jobs in the remainder of this decade through EAA reauthorization.

Mr. Roth, I would like to personally commend both you and Congressman Oberstar for your leadership in sponsoring H.R. 8412. I think that is certainly a step in the right direction.

The Association for Manufacturing Technology has a number of suggestions for EAA reforms. Those suggestions are detailed in my written statement. I would like to share a couple of those.

First, unilateral foreign policy controls should be strongly discouraged. The machine tool industry is still suffering the effects in terms of lost market share and lost reputation of the foreign policy controls which were imposed on the Soviet's Kama River truck plant way back in 1979. Because of these controls, U.S. machine tool builders lost a market in which we were the dominant supplier during the 1970's.

In addition, we developed a reputation within the entire Soviet market as an unreliable supplier as a result of this. This concern is particularly important at a time when CoCom discipline is likely to disappear. I refer to Dr. Freedenberg's comment here about the U.S. veto power.

Two, products and technologies placed on the Commerce Department's commodity control list should be indexed for performance so that items are removed as their technology becomes obsolete.

The machine tool industry has had bitter experience with a lack of updating. It took 17 years to get the last revision, from 1974's CoCom machine tool control list to the development of the CoCom core list. The CoCom machine tool negotiations are underway in Paris even as we speak. AMT and the Commerce Department's Technical Advisory Committee have submitted the recommendations included in my written statement to that group.

However, unfortunately, we are experiencing the same kind of lack of responsiveness from DTSA that characterized the 17-year freeze on change prior to 1991. My understanding from discussions as late as last night with the AMP's vice president for technology who is in Paris observing those meetings is that DTSA is continuing to maintain an aggressive position in this.

In fact, at this point in terms of machine tool controls, the United States is standing alone. Our allies have agreed to the recommendations that we have placed in my written testimony and the United States has not.

Lastly, the time, I think, has come for Congress to reexamine the rationale for the entire interagency review process. My own company had a very painful experience with this interagency cross purpose in the mid-1980's. We attempted to obtain a license for machine tools to be used at the McDonnell-Douglas commercial aircraft joint venture that the U.S. Government has been working hard to establish at Shanghai Aircraft 2 hours outside of Shanghai.

The PRC is projected by the Commerce Department to be the largest market for commercial aircraft in the 1990's. McDonnell-Douglas' aircraft joint venture to manufacture the MD-80 and its successor planes had been approved, in fact even promoted, by the U.S. Government.

Yet the machine tools to build this plane could not obtain license approval from the Defense Department even though the largest U.S. defense contractor would have had virtual control and dedicated use of the machines, and at the same time it is considered a high U.S. Government trade priority to demonstrate the superiority of U.S. aircraft technology in order to gain a foothold in one of the largest aircraft and machine tool markets in the world.

Mr. Chairman, I would suggest to you that something is fundamentally wrong with an interagency process that yields that result. Remember, again as Dr. Freedenberg has already said, if the United States is unreasonable and our allies fail to agree with us, then clearly the loser in this proposition will be American business and the potential for American jobs.

Whatever export control system the committee ultimately adopts, we urge you to include the reforms which I have outlined here and in written testimony. The current system is badly broken and must be fixed if we are to continue to compete and to grow through international trade.

Thank you.

[The prepared statement of Mr. Connelly appears in the appendix.]

Mr. GEJDENSON. Mr. McKelvain, I think we have enough time for you to make your statement and then we might have to come back for questions.

STATEMENT OF BOYD MCKELVAIN, SENIOR MANAGER FOR INTERNATIONAL TRADE REGULATIONS, INTERNATIONAL LAW AND POLICY, GENERAL ELECTRIC, REPRESENTING THE INDUSTRY COALITION ON TECHNOLOGY TRANSFER

Mr. MCKELVAIN. Thank you, Mr. Chairman.

Our appearance before the subcommittee today marks a departure from ICOTT's past charter of working only with the executive branch on export controls. We hope to make a useful contribution to the necessary reforms to respond to the new environment.

To survive, American exporters have to beat foreign competitors to the global market with high quality products. As Dr. Freedenberg said earlier, the pace of technology innovation is breathtaking. But the focus of international competition over the rest of the 1990's will be directed increasingly on the rapidly growing infrastructure equipment and services markets of the newly industrialized and industrializing countries because of their phenomenal growth and because the home markets are flat.

The conference today on the Asia-Pacific trading relationships is testimony to that fact. Unfortunately for U.S.-based competitors, some of these are the same nations found on the list of 50 to 60 sensitive countries targeted for a whole range of U.S. unilateral export restrictions and sanctions.

The top 12 of those sensitive countries import more than half as much as from the United States as the entire European community. But sadly, our companies are finding an increasing customer perception of political risk in doing business with U.S. suppliers rather than our European and Japanese competitors.

U.S. leadership in these crucial markets is being displaced for generations to come. Highly visible products for which we have en-

joyed a competitive lock were too tempting to those who wanted unilaterally to send signals to rogue countries.

Now we have seen our lock broken as foreign manufacturers in allied countries design around our ability to deny their exports to those markets; and so we face international competition strengthened by our own foreign policy.

This trend must be reversed if we are to avoid long-term damage to our country's economic security. We compliment the Clinton administration for the report of the Trade Policy Coordinating Committee. The export control initiatives for computers are dramatic and long overdue. When fully implemented, they will be a great help to the information industries.

Also, we compliment Mr. Roth and Mr. Oberstar for their bill which adopts many of the key principles we endorse. We compliment Mr. Manzullo and Ms. Cantwell for their bill and also Mr. Wyden on his bill.

Both of these latter bills ask the necessary fundamental question, why should we control products and technology that are inherently not controllable?

In the Senate, Mrs. Feinstein appropriately would require the administration to index controls to the pace of technology where appropriate.

We do not favor the organizational measure reported by the Senate Foreign Relations Committee, S. 1182. We view the organizational issue as having two facets, policy and procedure.

On the policy side, we recognize that such agencies as the State, Defense and Energy Departments should continue to play an important role in policymaking. But we oppose increasing the already excessive numbers of agencies involved, and that is what S. 1182 would do.

Procedurally, we favor having a single control list and a single agency handling the entry and processing of licenses and decision-making within established policy guidelines. The 30-day processing goal cannot be met otherwise.

But more generally, ICOTT urges the subcommittee to avoid the trap of building a new set of controls on the foundation of an export control system that was geared to a different threat, a different world economy and a different set of technological assumptions.

There should be a strong presumption against the use of trade restrictions under the Export Administration Act. Controls on goods and technology that are not related directly to weapons and instruments of war, that is to say the items traditionally subject to the Export Administration Act, should be permitted only if three conditions are met:

One, the controls are likely to accomplish their stated and essential purpose.

Two, they are less costly than other measures that might achieve the purpose.

And three, they are strictly limited in duration in the absence of comprehensive multilateral controls.

These standards should apply to trade restrictions imposed for national security and nonproliferation reasons as well as those imposed for foreign policy and sanctions purposes.

We believe fundamental issues need to be debated openly. Suppose that you were to host a debate on the role of export controls and nonproliferation. Important fundamental assumptions would have to be faced. Let the advocates for both sides present their arguments.

For example, the OTA and others have concluded that access to computers is not critical to the ability of any country to develop a nuclear bomb. The OTA report shows also that the development of chemical and biological weapons can be accomplished from widely available goods and know-how; and all weapons of mass destruction can be delivered effectively with conventional military equipment that already is obtainable easily if not possessed now.

There is a growing consensus among experts that the demand-side mechanisms to convince proliferants that their national interests are served better by cooperating are the only truly effective proliferation control measures in the long run. The current catch-all controls with no materiality standard simply are unacceptable.

We believe that recognition of dramatic changes in the geopolitical and economic environment facing the United States justifies reexamination of fundamentals and reinvention of the policies and authorities for using export controls to address our country's security and foreign policy interests.

Finally, we are confident that successful completion of the reform effort on which you have embarked can produce legislation that will force a radical reduction in the use of trade restrictions that do not serve the full range of national interests.

Thank you.

[The prepared statement of Mr. McKelvain appears in the appendix.]

Mr. GEJDENSON. Thank you, gentlemen. We will have to stand in recess. If any of you have a scheduling problem and have to leave, I will understand of course. I think we have a minimum of one and maybe two votes. We should be back hopefully within 10 minutes.

[Recess.]

Mr. FREEDENBERG, and gentlemen, let me run through some questions.

Mr. FREEDENBERG, at this point are there any controls on telecommunications? At the point that CoCom no longer exists, are there any American controls that are unilateral that exist on telecommunications?

Mr. FREEDENBERG. I had not mentioned that in my oral statement. I had a reference to telecommunications in my written statement. There are unilateral controls, since our regulatory agency, the NSA, is much more concerned about monitoring than our allies. In fact, we are unique in our concern in that area.

Mr. GEJDENSON. When you say monitoring, do you mean other people's telephone conversations? It is a little different than leading someone through a hallway.

Mr. FREEDENBERG. It is not about hall monitors. It is about world monitors.

First of all, let me note from my experience in the government that our allies didn't and don't agree on the overall purpose of CoCom being created in order to allow that, or to regulate that. It

was not stated in the basic written premises of CoCom. It is sort of an interpretation of the CoCom.

Second of all, we have specific concerns, and we see that in many areas, including encryption and including our concerns about fiber optics, that have always been resisted by our allies, so that we are likely to continue to have unilateral controls on telecom.

Mr. GEJDENSON. In that vein let me ask you, and without giving out any of the national security issues that you might have gotten when you had classified briefings, I mean one of the arguments is that with terrorism not ending just because the cold war is over, that we do need to have the ability to have access to this information and that if we make generally available the most sophisticated forms of encryption and we provide for the most sophisticated forms of telecommunications, this will make it virtually impossible for our intelligence agencies to get the kind of information they would need in terrorist activities.

Mr. FREEDENBERG. The big problem with that theory is CoCom does not control at the moment telecom for North-South technology transfer. Since it doesn't control telecom, it is really irrelevant to that terrorist concern. High speed telecommunications of all sorts are available to the entire world except for the original CoCom proscribed destinations. So if you are trying to monitor that sort of information, you are not going to get it through U.S. export controls with allied cooperation.

They never accepted it to the Middle East, or to North Africa, or to any of the places you are talking about. So it is not relevant here.

Mr. GEJDENSON. My friends, Roth and Oberstar, here have a bill that would in nonemergency circumstance limit U.S. export controls to only multilateral controls. Do you see any reasons to have unilateral controls?

Mr. FREEDENBERG. I would say no in a longer term, but there may be some particularly heinous individuals or acts that we want to disassociate ourselves from. So we can do it for short-term.

Mr. GEJDENSON. Would you agree with their proposal to give 180 days of unilateral controls unless Congress extends those?

Mr. FREEDENBERG. Yes, that is a short answer.

Mr. GEJDENSON. Mr. McKelvain, it is a very tough line obviously. We are looking at losing a considerable amount of business in China because of our satellite decision. Obviously, that is an important marketplace with one-fifth of the world's population, even if it is poor, for aircraft and other areas, a tremendous demand.

I understand that yours isn't—I mean you are not necessarily here looking for what is the best foreign policy, but you have to represent your corporate interests.

What if we were to switch from export controls in some of these areas to import controls? Would that cause less damage to American industry, not that you would be racing around begging us to exercise these. But if we were to switch to import controls, then we would end up doing more harm to those we want to harm and less to ourselves at least. Would you agree with that proposition?

Mr. MCKELVAIN. I think it is conceivable. It is necessary to look at the facts of each particular case. But as you probably recall when we attempted the Toshiba sanctions, we immediately ran into

an entanglement of their products in U.S.-made products that created a tremendous amount of difficulties in trying to impose import sanctions without hurting ourselves.

So I would think it would be necessary to consider that extremely carefully.

Mr. GEJDENSON. Mr. Freedenberg, would you support a proposal that Mr. Roth and Mr. Oberstar again have, which would state that virtually any situation in which export sanctions are mandated that import sanctions must also be mandated?

Mr. FREEDENBERG. I like the idea, but I would not want to be absolute on it because it would depend on the situation. You may have some major GATT problems that would lead to difficulties.

I think Senator Heinz, who I used to work for, was very much in favor of that idea. It has a lot of merit. I would not want to be absolute.

Mr. GEJDENSON. One of the things that troubles me, if you look at the satellite sanctions, what happens is then we don't sell satellites. It doesn't deprive the Chinese of satellites. They just get them someplace else. They still keep making the hard currency by selling all the textiles and other goods here in this country.

Do you generally support judicial review along the lines of what applies to other regulatory agencies? Do you think judicial review makes sense now that you are not part of the agency, Mr. Freedenberg?

Mr. FREEDENBERG. Particularly since I can participate in the other side of it.

No, I think it does. What you have is a situation in which you don't have the administrative protections in the export administration area. I think judges would be careful not make national security decisions, but I think you could easily have them making decisions about arbitrary or capricious activity on the part of the U.S. Government. That makes a lot of sense.

Mr. GEJDENSON. Is judicial review hard for industry, Mr. McKelvain, in these kinds of situations for fear of retaliation by the government?

Mr. MCKELVAIN. That is always a problem, but I think industry can approach that through trade associations and groups.

Mr. GEJDENSON. And they have legal standing? Is that your assessment?

Mr. MCKELVAIN [prompted by Counsel Hirschhorn]. Yes.

Mr. GEJDENSON. My friends Roth and Oberstar would give the authority of EAA to the Secretary of Commerce. Do other agencies have legitimate roles in export control process?

Mr. FREEDENBERG. Absolutely. The question is do they have a role in each and every license? That is what the chart from hell that was shown earlier by AT&T's representative demonstrates. You end up with a difficulty of having a policy, because each license becomes a policy decision. What you need to have is a focal point for the administration of export controls, so that you can stop arguing policy on each and every license.

Mr. GEJDENSON. Other agencies would be put in the process.

Mr. FREEDENBERG. I would think obviously the Defense Department has a great deal of expertise in national security issues. The State Department obviously has to decide where our foreign policy

is going, but you don't need it on every single license. There should be some overall policy. They can make up the list, however.

Mr. GEJDENSON. NAS made some recommendations on the role of Congress a few years ago. Do you agree with those?

Mr. FREEDENBERG. Yes.

Mr. GEJDENSON. Should NAS have some formal role here because they end up muddling in it all the time anyway; don't they?

Mr. FREEDENBERG. I think they are a very useful way of getting an outside view because they bring in a great deal of expertise. I think a regular look at the subject by a panel such as NAS would be very useful, particularly where we had the case of the machine tool industry without any redress for 17 years and where we had the computer industry not able to make its point about changing the control parameters.

You, Mr. Chairman, mentioned this back in 1989, that an 80386 computer was not going to endanger our national security. The National Academy of Sciences might have had a very intelligent thing to say about that. When we first decontrolled the 80286 computer, you would think the world was going to come to an end if you listened to the Defense Department.

Mr. GEJDENSON. The Manzullo-Cantwell bill would eliminate export controls on telecommunications, computers, semiconductors with the exception of going to terrorist countries or embargoed countries. Would you all support that?

Mr. MCKELVAIN. We would support it. We would, on the other hand, suggest that it should not substitute a residual unilateral control. Since, the basis for the decontrol is that these items are not controllable, leaving a residual control for other purposes would not make sense.

Mr. GEJDENSON. Mr. Roth.

Mr. ROTH. Thank you, Mr. Chairman. I will ask my questions starting from my left here, your right. Mr. Connelly, I am glad to have a chance to meet you and see you here before our subcommittee because I feel if we are nice to you, you will be nice to us. And when these issues come up, you will call off Jim Mack because that guy is a bulldog.

Mr. CONNELLY. I will see what I can do.

Mr. ROTH. I represent some of my best friends, Gideon Lewis. As you look at the world, where are the emerging markets for our U.S. machine tool exports and what can we do to help you meet that competition?

Mr. CONNELLY. China obviously is a very significant opportunity for us. I think Europe is, as well. I think there is still a lot of potential in Europe that we have not tapped adequately.

Mr. ROTH. Where in Europe? It seems like the Germans and some of these people are such stiff competitors for us. Where in Europe would you see that?

Mr. CONNELLY. I would see it in Germany and the middle European countries, as well.

In terms of what could we do, let me just make a statement that ties directly to the export controls.

We provide in my own company two basic levels of machinery, one very super precision and one general precision. We have given up even attempting to sell anything in the super precision area to

the Chinese, primarily because we have been totally unsuccessful in obtaining licenses.

As a result of the difficulties that we have had, the Chinese have told us if you can't work that out, don't come back. In fact, as I mentioned in my oral testimony, we have been back to Shanghai Aircraft. We have been back there repeatedly trying to open up those doors for future business potential, and they have said, "don't bother."

So export controls are a significant issue for us. I heard a question asked a minute ago, how would we feel as a group about considering these other areas, computers and so forth, for decontrol under Mr. Manzullo's bill.

I guess as a machine tool builder I would and that machine tools should not be left as the only item on the control list. If the others go, I would like to go, too.

Mr. ROTH. What do you think the outlook is for machine tools here in the United States for, say, the next 4 or 5 years?

When I go back to talk to my pals at Gideon Lewis, what can I tell them?

Mr. CONNELLY. I think we have an outstanding opportunity. Frankly, I will attribute that to what has transpired in the last 7 years during the period of the Voluntary Restraint Arrangements, which, as you know, come off next month.

I think the American machine tool industry has substantially rebuilt itself. I think the numbers and the evidence are there.

We have spent substantial sums on research and engineering and development and improving this industry in the United States. Although it is a much smaller industry than it was, I think we have done an outstanding job.

At this point we are willing to say, "Let's compete on an open and fair basis." I think we have a very high potential for the future.

Mr. ROTH. Dr. Freedenberg, you know I have a number of questions here that relate to the legislation. I was wondering because you are a person who takes a historical perspective. You mentioned something about the tremendous change coming in computers every 4 or 6 months. I see that in our own family, in our campaign computer because we do a lot of that in our home.

The computers we are buying now, what a difference in just a year. The one we bought a year ago is ancient compared to the one we bought last week.

My question is this: Yesterday we had the bill on the floor and there was a lot of acrimony. You had Congressmen get up and say, you know, I talked to some people and they broke down and cried and things like this. This morning I was on a radio show. People called in. It is almost like hysteria. People say, we need change, we need change.

The question I have for you, you are a historian, is there a historical metaphor for what is happening in the world today? There seems to be so much change and people feel so uncertain that psychologically there is something going on.

Mr. FREEDENBERG. That is why I used the dawn of the atomic age as an example. All of a sudden it changed all the old ideas, be-

cause you had this weapon of mass destruction that never existed before, and that seemed to change all the old assumptions.

You really have that today in the information industry, not just computers but telecommunications and semiconductors, et cetera, and software. It is exploding, and it is changing all the old ideas you had about controlling it and all the old ideas about how they could be used.

That is also changing the way we have to regulate it. So you really do have a big change. That is what I tried to emphasize in my testimony. I trace export controls back to 1253 by an edict by King John. You can trace it from there on; when the United States, since 1917 with Trading with the Enemy Act. I think we have to break out of these old ideas. I am not saying we are basing them on 1253 edicts, but what we came up within 1949 is certainly not relevant anymore, and that is the basis of the current act.

Mr. ROTH. Don't you think if you trace it back to 1253 you always seem to be working with nation states or with countries? But it seems now the biggest enemy is going to be individual groups. You had mentioned before how you can transfer computers and so on. That is not the nation state that is in control but various groups within a state.

Mr. FREEDENBERG. Again, despite the 1253 edict, the long bow did diffuse throughout the Western world. It did not end war as we knew it. Many times this kind of technology is overrated on what its effect is.

Mr. ROTH. The rules that were promulgated in 1253, are they still in effect today?

Mr. FREEDENBERG. It is just the historical basis. We have made a few amendments.

Mr. MANZULLO. I have a more contrary question.

Mr. ROTH. I will be happy to yield to the gentleman.

Mr. MANZULLO. Briefly, could each of you tell us—this is the same question I gave to Mr. Richardson—the markets that are actually effected by the lifting of controls, liberalizing of controls on computers, chips, and telecommunications?

It is important that we bring out that total market that is affected. Computers are not made in my district. My district is the machine tool capital of the world, Rockford, Illinois.

We had a manufacturer that built a machine that cost \$2 million. It was driven by a computer. It got tied up in export controls for 2 years and they almost had to eat the products.

I would like each of you to tell us the extent, breath, scope and pervasiveness of the dramatic change that will take place in industry once these controls are lifted. It is an important question.

Mr. FREEDENBERG. I will lead off. The market in the People's Republic of China which has been growing at 9 percent a year since 1978 is projected to be in the tens of billions.

In the areas that CBEMA represents, they do have the foreign exchange, and they do have a desire for American technology. Obviously, we have to have some concerns about the end use of these products. That is what we can negotiate with them.

We have the incentive of that technology to help them develop economically to keep them from using it in the wrong way and our

own ability to monitor their activities just through satellites that would be a check on the wrong use of that technology.

The market in telecommunications, in computers, is just almost unlimited. We are talking about an economy that is supposed to be, although I am a little skeptical, passing Japan in size by the year 2010. Certainly if it continues at its current rate of growth we will have an enormous market for our products and a great incentive to get in on the ground floor.

Mr. ROTH. Dr. Freedenberg, it is always a pleasure to have you before us. We take your advice very seriously.

Mr. McKelvain, you have been involved on the inside on these export controls. From your experience, what happens if we go to the national discretion system to replace CoCom?

Won't this create more problems than we had before?

Mr. MCKELVAIN. That is a danger. The experience with national discretion generally has been that the United States is more likely to impose the controls with greater enthusiasm, higher thresholds for approvals, perhaps more delay in license processing, et cetera. It turns out to be a virtual unilateral control in many cases.

Mr. ROTH. That is what I am afraid of.

Thank you very much.

Mr. GEJDENSON. Mr. Fingerhut.

Mr. FINGERHUT. I have no questions.

Mr. GEJDENSON. Are there any further questions?

Mr. MANZULLO. The question that I was asking, we are talking about the sales of computers, chips and telecommunications. There are very few congressional districts where those products themselves are actually manufactured.

What I am trying to establish here is areas in this country that directly relate to the manufacturing of these products; for example, soybeans in use for plastics.

The bill that I have introduced, if it is passed and made a part of the EAA, will greatly increase the use of soybeans for plastics that are used in the construction of the computers.

Could each of you take that and give me an idea of the pervasiveness of what will happen to different raw materials and different feeder corporations into those companies that directly make chips, computers and telecommunications?

Mr. FREEDENBERG. I think the reason you have this pregnant pause is that it is just hard to trace these things in a serious way if you are asking for economic impact.

I think what you have is a much less fettered market and one in which the United States, which has, by the way, pulled back ahead on computer technology and semiconductor technology in recent years where there was some worry about the lag.

We are now back out in front. We have certainly had the lead in Mr. McKelvain's area with aerospace technology and turbine technology and a number of other areas. If we are unfettered, we are going to compete and we are going to win those markets.

That doesn't mean you have no concerns whatsoever, but I think the controls we have had up to now have been, clearly by every study, have been a detriment and to the degree you end them and have some new sensible regulatory program, you are going to have

a big impact. When you get into numbers, it is very, very difficult to quantify.

Mr. CONNELLY. I would have a wish that would go along with that. If that did happen and those improvements were seen, I think the likelihood of those removing controls on machine tools would be enhanced as well. I would love to see that be a success.

Mr. MCKELVAIN. It is hard to trace the food chain that supports the computer and telecommunications industry across all the suppliers in the industry. It is the sort of thing that, as far as I am concerned, would take some research. We would be happy to help you with that if you would like specific facts.

It is always true that across this country in virtually all the industry sectors in which the United States is successful internationally, many of the supplier industries, second tier, third tier suppliers and their employees may not actually be aware that they are involved in international trade.

In the aircraft industry, for example, that is especially true where the large engine and airframe manufacturers have lists of thousands of secondary suppliers. Those people often don't realize that they are in the export business. But the aircraft industry sells more than 50 percent of its product outside the United States.

So when we are denied access to important markets, and as I said in my statement there is a large share of the markets for these infrastructure kinds of business in sensitive countries, when we actually lose access to those completely while our allied competitors have continued access, then that really shuts down many of the jobs in this country for the long term.

Mr. MANZULLO. Thank you.

Mr. GEJDENSON. Thank you. We thank the panel for their testimony. We will probably see you again before this is all over.

Our next witness is Jess N. Hordes, a director at the Washington Office of the Anti-Defamation League. Your entire statement will be placed in the record. Please proceed as you are most comfortable.

STATEMENT OF JESS N. HORDES, DIRECTOR, WASHINGTON OFFICE, ANTI-DEFAMATION LEAGUE

Mr. HORDES. I am Jess Hordes, Director of the Anti-Defamation League's Washington Office and I am pleased to be testifying on behalf of ADL and the Committee on Freedom of Trade with Israel, which represents the major Jewish organizations that monitor the Arab economic boycott of Israel.

I want to commend the chairman for his leadership on this issue and thank Congress for its work in seeking to end the boycott.

In 1945, preceding Israel's existence, the Arab League voted to impose a boycott against the Jewish community in Palestine and prevent Israel's establishment. By 1948, when military efforts to destroy Israel were unsuccessful, the Arab boycott of Israel became an extension of war by other means. Through it, the Arab League sought to undermine Israel's existence as a sovereign state.

In the initial stage, a primary boycott, in which only Arab countries and companies were prohibited from dealing with Israel, was in effect. In the early 1950's, the economic boycott was extended to its secondary and tertiary form, targeting American and other for-

eign companies doing business with Israel. These companies were put on the Arab League's infamous "blacklist."

Recently the Federation of Israeli Chambers of Commerce estimated that the boycott has cost Israel \$45 billion in lost trade and investment over the last 40 years. It has been estimated that upwards of 1,000 American companies have been on the blacklist and countless others, who are intimidated by possible Arab economic retribution, simply distance themselves from business ties with Israel.

The United States has taken the lead in countering the boycott. In 1976 and 1977, Congress passed legislation prohibiting and penalizing compliance with the secondary boycott and requiring disclosure of boycott-related requests. In the 1980's, the United States stepped up efforts to get our trading partners in Europe and Asia to adopt an antiboycott stance as well.

U.S. and allied military assistance against Iraq in the Persian Gulf War only underscored the outrageousness of a secondary boycott aimed at American and foreign companies by the very Arab states that benefited from U.S. protection. Although assurances of boycott policy change were received from Kuwait and Saudi Arabia, there has yet to be a clear break from their past discriminatory policy. Countries seeking a close strategic relationship with the United States cannot close their markets to U.S. business.

In the context of the peace process, the boycott, even in its primary dimension, is an anachronism. It prevents the economic normalization that all the peoples of the Middle East desperately seek, complicates implementation of Israeli-Palestinian peace, and runs contrary to the spirit of economic cooperation that is beginning to take hold in the region. At a time when donor countries are strategizing about how to build peace from the ground up, removing the boycott would allow the region to move from its confrontational past to a future of reaping the dividends of peace. Arab claims that the boycott should not be reexamined until Israel withdraws from all occupied territories contradict the fact that the boycott was established in response to Israel's very existence.

Whatever linkage the Arab states might assert between continuation of the primary boycott and the peace process is unjustifiable in connection with the secondary boycott aimed at American and other foreign companies. The secondary boycott violates the most basic principles of free trade and constitutes illicit coercion of American commercial decisionmaking.

At present, only Egypt has formally dropped the boycott, as a result of its 1979 peace treaty with Israel. A few North African Arab League members implement only the primary boycott. Recently, Saudi Arabia and some Gulf states indicated a tacit willingness not to enforce the secondary boycott. But these and other small positive signs are tempered by oscillation in practice and the failure of Arab leaders to come out publicly in support of relaxation of the boycott. At best, these countries are divided on the issue. Enforcement mechanisms remain in place and boycott requests continue.

In the cases of Kuwait and Saudi Arabia, U.S. antiboycott statistics do not bear out their assurances to U.S. officials that the secondary boycott is no longer enforced. The number of boycott requests originating from Saudi Arabia actually increased over the

last year. In fact, 314 prohibited requests were received from Saudi Arabia in the last quarter of fiscal year 1993, higher than in any of the previous six quarters.

Several months ago, in response to U.S. pressure, the Kuwaiti foreign minister suggested that his country would no longer conduct blacklisting.

The secondary boycott will not effectively end without unequivocal public statements and action by Arab governments. Hints of its de facto dismantlement are not adequate, since the secondary boycott operates through the intimidation of companies who shy away from business relationships with Israel to avoid Arab economic retaliation.

A perfect example is the recent report of compliance by one of Britain's leading firms, Imperial Chemical Industries (ICI). An internal memo from the company's legal affairs department warned that, despite the Middle East peace process, the company should assume that Arab boycott officials would be "as vigilant as ever." Thus, without explicit Arab public action to the contrary, the widely held perception that the boycott is in place continues to impact business decisions.

From the start, the Clinton administration has given high priority to urging Arab leaders to abandon the boycott. With the signing of the Israel-Palestinian Declaration of Principles, and progress in the peace process, the boycott becomes not only an anachronism, but a growing irritant to future advances. This relic of animosity and nonrecognition has no place in the new architecture of peace. The President and the Congress must continue to demand from the Arab world and the PLO a clear end to the boycott.

Let me suggest some ways we can do that.

We welcome the recent announcement by U.S. Trade Representative Mickey Kantor that the International Trade Commission will investigate and quantify the direct and indirect damage to U.S. business resulting from the boycott, raising the specter of possible trade sanctions. This should be a useful tool in effectively pressing U.S. interests.

Two, the administration should fully utilize multilateral mechanisms such as the GATT, OECD, and the G-7 to rally our trading partners and to pressure Arab countries to end it. At the Group of Seven meeting in Tokyo last July, the administration successfully negotiated a clear statement on ending the boycott. Saudi Arabia's application for GATT membership provides a new opportunity for action and I commend Chairman Gejdenson for his initiative on this front.

Three, we should expand our efforts to ensure that foreign companies complying with the boycott are not awarded U.S. Government contracts. We believe that all U.S. Government agencies and departments, not just State and Defense, should, as a condition for awarding contracts, require foreign companies to certify noncompliance with the boycott.

Moreover, Congress needs to determine the effectiveness and monitor the implementation of the current legislation. We are concerned that no system is in place to investigate the accuracy of contractors' certifications. Specifically, the departments should conduct

random checks into the accuracy of certifications, rather than rely solely on the word of the certifying foreign contractor.

As long as the boycott remains in force, vigorous U.S. antiboycott enforcement through the Office of Antiboycott Compliance (OAC) must continue. After coming under criticism in 1989, for a decline in enforcement actions, OAC reforms have generated an increase in enforcement activity. OAC is now operating at close to the authorized staff levels.

These levels should not be allowed to drop. OAC should continue its program of staff training to improve and upgrade legal and investigatory techniques.

Two, we commend the increase in maximum penalty levels from \$10,000 to \$50,000 proposed by the House and supported by Secretary Brown and former Secretary Mosbacher. This, if enacted, will be the first monetary increase in 16 years.

Three, we also believe that increased denials of export privileges in severe cases will strengthen enforcement and are pleased that in fiscal year 1993 three consent agreements provided for the denial of export privileges.

Four, we urge greater coordination among government departments in combating the boycott, including implementing the 1991 recommendation of the Commerce Department's Inspector General to increase Justice-Commerce cooperation in the area of criminal violations.

OAC could also work closely with State and Defense Departments to help implement antiboycott regulations ensuring that government contracts are not awarded to companies known to comply with the boycott.

Six, as proposed by Congressman Schumer, we believe antiboycott enforcement would be strengthened if the Export Administration Act explicitly recognized a private right of action that would give boycott victims a means to recover damages suffered as a result of this discrimination.

In sum, although there have been some signs that the boycott is weakening, no clear picture of progress has emerged. What remains clear is that continued pressure in all areas is the best defense against the continued blacklisting of and discrimination against U.S. companies.

Now more than ever, the United States must continue to strengthen its antiboycott efforts. The facts demonstrate that if we cease to be vigilant and allow ourselves to be placated by vague and equivocating statements, the structure of the boycott and its negative effects on the United States and Israel will continue.

[The prepared statement of Mr. Hordes appears in the appendix.]

Mr. FINGERHUT [presiding]. Thank you. Do you have any questions?

Mr. ROTH. Mr. Hordes, I want to congratulate you on your good statement. I am sure you are aware that Chairman Gejdenson is a leading Congressman in the fight against the boycott and has done a lot of work there.

This past week, because of the chairman's efforts, we approved the two measures in this subcommittee to increase the pressure on the Arab League.

Do you see an end to the boycott? After all, Jordan is now negotiating a commercial treaty with Israel. Won't that blow a big hole in the boycott?

Mr. HORDES. It should blow a big hole in the boycott. The problem we have found is that hints and private assurances are not enough to end the boycott. There was a recent case involving Imperial Chemical Industries of Britain which sent an internal memo to its offices saying that despite the progress in the peace process, the Arab League officials remain vigorous in their enforcement and we don't want you to have business dealings with Israel.

So what we need is a clear, public statement and clear action in the Arab world to signal in an explicit way to companies around the world that the boycott is at an end. Private hints are not sufficient to bring companies who have been intimidated by the boycott into business dealings in the region.

Mr. ROTH. Thank you very much. Again, congratulations on your excellent statement.

Mr. GEJDENSON. I would like to thank Mr. Roth for his kind words and commend you for the work that you have been doing. It is clear that despite all their statements during the Gulf War, Saudi Arabia, Kuwait and others have not ended the boycott, not with the agreement reached between the Israelis and PLO, not as a result of American assistance during the war to protect the King and his assets.

Has Saudi Arabia indicated anywhere that they are moving away from the boycott in any real way by their actions?

Mr. HORDES. Saudi Arabia has given private assurances to any number of people. The problem is when you look at the boycott statistics of our own Commerce Department, we see that American companies are still getting boycott requests from Saudi Arabia and that, if anything, the prohibited boycott requests are increasing in number.

Mr. FINGERHUT. Mr. Hordes, thank you also for your testimony.

One of the things we hope to accomplish through the resolution we passed here last week is to fully engage the administration of this country in the effort. It is our general impression that the administration has been engaged, perhaps even more so than the previous administration, on this issue. I would welcome your views on the extent of the administration's involvement and what more we can urge them to do.

Mr. HORDES. We are pleased with the administration's commitment to move this issue. The President has, from the moment he has been in office, indicated that this is a high priority in their dealings in the region.

Secretary Christopher, in his trips to the Middle East, has raised this issue both with the Kuwaitis and with the Saudis. U.S. Trade Representative, Mickey Kantor, recently announced a very important initiative asking the ITC to look into the damage the boycott has created.

The problem we face is getting beyond the rhetoric and beyond the rhetorical urging and finding means to make it clear to the Arab world that the time has come, that it is long past due, for action that clearly and decisively puts an end to the boycott and eliminates the kind of psychological intimidation that many compa-

nies operate under and shy away from dealing in the region because of the boycott.

Mr. FINGERHUT. And which of your specific recommendations do you think the most—

Mr. HORDES. We need to continue to press this issue in multilateral forums and in bilateral forums. We welcome the ITC assessment of damage to U.S. companies as a result of the boycott and the possibility of trade sanctions should we make a determination that there have been damages. Also, the idea of cutting off U.S. arms sales to countries that boycott American companies while giving the President a waiver authority, gives an important tool to this administration to advance U.S. interests in ending the boycott.

Mr. FINGERHUT. Is the performance of the Office of Anti-Boycott Compliance improving?

Is it up to your expectations?

Mr. HORDES. I think the performance of the OAC has improved and, frankly, it has improved in large extent because of hearings held by this subcommittee a couple of years ago which pointed out important deficiencies in its operation.

As I indicated in my testimony, OAC has lived up to the commitments it has made, by and large. I think this subcommittee and others need to continue to monitor the Commerce Department and OAC's operations to make sure that they continue and that we don't find ourselves in a situation where staff levels decrease and then we find a decrease in enforcement activity.

Mr. FINGERHUT. I thank you.

Are there any questions? We thank you for your testimony.

Mr. HORDES. Thank you.

Mr. FINGERHUT. We ask the next panel to come forward, Mr. Danjczek and Mr. Lehmann. We thank you for your patience. Your testimony will be placed in the record if the chairman says that is OK. You may proceed.

Mr. GEJDENSON. I hope the gentleman from Ohio listens to his chairman in other matters as well as he does here.

Mr. FINGERHUT. The gentleman is looking for opportunities this morning to go along with the chairman.

Please proceed.

STATEMENT OF DAVID DANJCZEK, VICE PRESIDENT FOR INTERNATIONAL BUSINESS, LITTON INDUSTRIES, REPRESENTING ELECTRONIC INDUSTRIES ASSOCIATION

Mr. DANJCZEK. Thank you, Mr. Chairman.

We are pleased to respond to the subcommittee's request for comments on the Export Administration Act. I am staff vice president of Litton Industries, a \$5.5 billion company which is committed to international business. Today I am appearing before you on behalf of the Electronic Industries Association where I chair its International Business Council. EIA is the national trade organization representing the U.S. electronics manufacturers. On behalf of this \$300 billion U.S. high technology industry, I welcome the opportunity to appear before your committee and am pleased to discuss with you the rewrite of the Export Administration Act (EAA). I would especially like to compliment you on your leadership on this important issue.

It is essential that our policymakers understand that our survival as a nation depends upon our economic well being. Without a healthy economy, our Nation cannot prosper in the world environment, and will not be seen as a leader. National security rightfully continues to play a critical role in our national well-being, but it is only one part. Indeed, today's definition of national security includes economic security as a critical component. Over the next few months this subcommittee will be considering fundamental changes to the existing Export Administration Act. We applaud this effort and would like to provide to you our suggestions for the revision. Overall, we see four basic principles as essential for a new act.

First of all, the act must provide a means to account for the rapid pace of technological change.

Secondly, the export license process must be made more transparent and efficient.

Third, our control system should focus only on those "choke point" technologies that are essential for the development of weapons of mass destruction and target countries that are developing these technologies.

Finally, our policymakers should insist on multilateral controls and resist the use of unilateral controls. Past experience has shown they only punish our domestic industries, and rarely have an intended effect on the parties that they are supposed to punish.

One of the most challenging problems that you and your subcommittee will face in the development of this new EAA will be the question of how to address the rapidly changing nature of today's high technology products. In times past, a new technology could capture a market for years before it was surpassed by newer and more sophisticated products. Today, product life cycles are infinitely shorter. In many cases, the lag time between generations of technology can be as short as 6 months. Our export control system must be able to address these changes in a manner that allows our companies to market competitive products. In order to do this, the U.S. Commerce Control List should focus only on technologies that are specifically designed to aid in the development of weapons of mass destruction. Current controls focus on many civilian technologies in the computer, telecommunication and semiconductor sectors. These current controls unnecessarily hamper our high technology industries. We must remove these controls before they irreparably damage our industrial base.

As a means to achieving that goal, we strongly endorse the "Computer and Communications Trade Freedom Act," H.R. 3431 that Congressman Manzullo and Congresswoman Cantwell introduced recently. This bill advocates a fundamental new approach toward the export control system. It would address the rapid pace of technological change by ensuring that our control regime is targeted only on technologies and countries which are of proliferation concern.

Another important component of a new Export Administration Act must be transparency and efficiency in the licensing process. In particular, we believe that strict time guidelines on the license review process should be established to which all agencies would adhere. Instead of specifying review periods for the individual reviewing agencies, we believe that establishing an overall time dead-

line would be more effective. Such a mechanism would require reviewing agencies to consider applications in a timely manner, not to exceed 30 days.

As I have already mentioned, our current regime does not really distinguish between "choke point" technologies and civilian technology for reasons of control. In most cases, purely civilian technologies are controlled because they have the theoretical potential to be indirectly involved in an illicit purpose. We believe that the dual use control list should only contain those commodities that are truly "choke point," i.e., are directly related to the development, production and use of weapons of mass destruction. Multilaterally controlling only those technologies would help focus our Government's efforts on the proliferation of dangerous weapons related technology. Additionally, our export control system should identify "target countries" that are engaged in proliferation activities. Again, the fundamental changes called for in the Manzullo/Cantwell legislation would address this problem, for certain industries, by focusing controls only on countries and technologies that are truly of proliferation concern.

Of paramount importance for you and your subcommittee to consider during deliberations over the next few months are the imposition of unilateral export controls. These types of controls are probably the most detrimental to our industry because they punish U.S. high technology manufacturers while allowing foreign firms to conduct business as usual.

If unilateral controls are to be used at all, we would propose that you consider a finite period for their use, while our Government is negotiating with foreign governments on their strict multilateral implementation. The U.S. Government should establish criteria for initiation of foreign policy controls. If multilateral agreement cannot be reached, then the unilateral controls should be removed, after a defined period, and U.S. producers allowed to export without restriction. We believe that the clarifying of controls would encourage companies to export further.

We are truly at a crossroads in our Nation's development. Our long conflict with the East bloc is over. It is now time to address the different problems facing our Nation. Economic competition, technology evolution and proliferation are these new challenges. Our export control system must adjust to meet them. I believe that your efforts on rewriting the current EAA are essential, and I offer EIA's assistance as well as my own.

Mr. FINGERHUT. We thank you. Mr. Lehmann.

STATEMENT OF RICHARD LEHMANN, DIRECTOR OF PUBLIC AFFAIRS, WASHINGTON OFFICE, IBM CORPORATION, REPRESENTING THE EMERGENCY COMMITTEE FOR AMERICAN TRADE

Mr. LEHMANN. I am Rich Lehmann with IBM. I am appearing today on behalf of the Emergency Committee for American Trade, ECAT; an organization of 60 chief executive officers whose companies have annual worldwide sales of over \$1 trillion and have nearly 5 million employees.

ECAT has recently engaged in an extensive review of its export control positions, taking into account the changing dynamics of the

world political situation, the globalization of industry and the speed of technology development and its dissemination. We have developed the outline of a model Export Administration Act bill along with explanations for each of our recommendations.

I request that the outline be included in the record of the hearing.

Mr. FINGERHUT. Without objection.

Mr. LEHMANN. In the interest of time let me briefly describe three major areas of ECAT's emphasis. First, why do you need export controls? Second, is overlapping bureaucratic authorities, and third is how can regulation keep up with technological change.

THE PURPOSE OF CONTROLS

The administration needs to specify the purposes of export controls and clarify the purposes of it in a post-cold war era of rapid technological change. Both the Bush and the Clinton administrations have agreed that curbing the proliferation of weapons of mass destruction should be at the top of our security and foreign policy agenda. ECAT supports this.

However, the specific nature of the nonproliferation policy has not been well articulated. Are we trying to stop the manufacturer of the first bomb, the next bomb or the last bomb? This is an IBM power PC chip. It is 55,000 times more powerful than the main-frame computers used at the Los Alamos Laboratory in the early 1970's to produce the nuclear warheads that are on MIRV's today.

When we talk about nuclear proliferation, these things are going to be made by the millions, are being made by the millions today. The administration, as a condition of controlling exports, should state what policy aims are being achieved and by so doing, how.

ECAT asks that you consider a sense of Congress resolution asking the President to do so.

CLARIFICATION OF AUTHORITY

We also believe it is important to examine the underlying authority of various forms of export controls.

Like many others this morning, we support elimination of the distinction between foreign policy and national security controls.

A separate issue is the statutory overlap between the Export Administration Act and the Munitions Act. We urge that commercial products be subject only to the new Export Administration Act.

To achieve clarity, we suggest that a commercial product be defined as those where at least 75 percent of its consumers and users are nonmilitary.

The third area is keeping up with technological change, a regulation keeping up with technological change. ECAT has in the past been a strong advocate of indexing provisions that were contained in the bill that this subcommittee produced 2 years ago. Technology, particularly in the computer and semiconductor industry, is advancing so fast and is being disseminated so quickly that the American regulatory framework has not kept pace.

Even if the indexing provisions of the bill from 2 years ago were implemented, they would be geared to products and technologies that are now in the marketplace.

I think that the suggestion made bid Congressman Edwards earlier this morning for a system of anticipatory indexing, anticipating what will be in the marketplace such as the administration did with its announcement in late September which was anticipating that these kind of chips would be in computers is the kind of regulatory framework that is required.

Mr. FINGERHUT. How many mega tops are in that chip?

Mr. LEHMANN. 107.

Mr. FINGERHUT. Is that in the regulatory changes the administration made, that that would be decontrolled?

Mr. LEHMANN. Yes. Under the regulations that the administration is working out, this would be decontrolled under 500 decontrol.

But under the current definition, which has not been changed, two of these chips would constitute a supercomputer that 15 years ago would have filled an entire room.

Mr. FINGERHUT. Mr. Manzullo.

Mr. MANZULLO. The suggestion that was made by Mr. Edwards puts us in the definition of being a prophet as to the anticipation of new technology. It reminds me of the story that some brilliant member of this body wanted to, in the late 1800's, close up the Patent Office because they thought everything that could be invented had already been invented.

How could you possibly have some kind of controls that anticipate when technology is doubling at least every 5 years?

Mr. LEHMANN. Mr. Manzullo, I think the process we have in mind is similar to what the Clinton administration did prior to its late September announcement. This chip was first produced about a year ago. It is incorporated in products that are only being introduced this quarter.

That is about a year gap, so you have an idea as to what the computing power is going to be in the next 12 months.

What the administration did was to survey industry groups and individual companies regarding their product availability plans and how significant those plans were going to be.

After surveying the industry, they ran their own internal analysis to conform the information they had received and came out with what we thought was a rather reasonable recommendation. It was not based upon technology that was then in the marketplace. It was based on technology that was about to be in the marketplace.

The reason we suggest this is that if you wait for foreign availability to be confirmed in the foreign marketplace because of the kinds of things that Dr. Freedenberg mentioned earlier, product cycles are 6 months long.

By the time you confirm foreign availability of things already in the marketplace, the opportunity to get a return on your rather substantial investment has been lost.

Mr. MANZULLO. Thank you.

Mr. FINGERHUT. This is not the U.S. Supreme Court. We don't always interrupt witnesses like this. But I think you touched on an issue that Mr. Roth will want to ask about.

Unless you have something that you desperately want to say right now, let me ask Mr. Roth to go ahead.

Mr. LEHMANN. I was finished.

[The prepared statement of Richard Lehmann appears in the appendix.]

Mr. ROTH. Chairman Gejdenson and myself urged the President to approve a substantial decontrol of computers. With the fast changes in the computer power, will this decontrol be overtaken in a short while?

Mr. LEHMANN. Yes. I think it is usual for the next 12 months. But a process such as the one that Congressman Edwards referred to earlier needs to be put in place.

Mr. ROTH. So we have like an elastic clause. You will have an elastic clause. So this formula moves with the time?

Mr. LEHMANN. Technology has provided that computing power doubles every 18 months. So that is the kind of the timeframe we are talking about.

Mr. ROTH. Mr. Lehmann, that is why I want you to get behind my bill because that is exactly what it does.

Mr. LEHMANN. We like your bill, sir.

Mr. ROTH. I know the power of IBM.

Mr. LEHMANN. We wish it was a bit more powerful.

Mr. ROTH. Not only in computers, but you passed that NAFTA bill yesterday. I had a guy who works for you at IBM who came all the way from Green Bay, Wisconsin.

Mr. LEHMANN. Yes, I know.

Mr. ROTH. You know that? It was unbelievable. I had Volcker there and Volcker waited while I talked to him. You had Cal Cohen and Aaron Cross over there twisting arms.

I just want to say I hope you get behind my bill that way, too.

Mr. LEHMANN. Thank you, sir.

Mr. FINGERHUT. Mr. Roth, do you have any further questions?

Mr. ROTH. I have a question for Mr. Danjczek. You eloquently described the unilateral controls which is again something I am concerned about in our bill. These unilateral controls are sharply limited in my bill. Dave Calabrese sensitized me to that.

My question, if we have a total embargo which Congress specifically approves, then we can do it, but otherwise we couldn't. If we can't totally abolish unilateral controls, don't you think that would be a better approach, in other words, to limit it?

Mr. DANJCZEK. Yes. Clearly, Mr. Roth, I think we should try to limit it. The comment this morning Mr. Richardson made in referring to the best policy for unilateral controls as one of abstinence is indeed, I think, a good, forward-looking policy.

But I also believe that we live in a real world where to ask for a total embargo on that, like abstinence in many cases, it does not always work, sir. We do need to limit it to a certain time period to give the administration a chance to truly make the controls multilateral. Either at that point in time we have a total multilateral embargo against a given country or we release the products.

Mr. ROTH. Under the bill it would have to be a total embargo and Congress would have to specifically approve it so we do have those guidelines and tried to narrow it. We are going to pass a bill. We are going to start marking up next February because, as you know, the old law expires the end of June.

If I can get you to also put your imprimatur on my legislation, I would really appreciate it because we have to have some vehicle to go with.

Mr. DANJCZEK. Yes, sir. We believe your legislation is very good and we support it, sir.

Mr. MANZULLO. I was going to make a comment on abstinence versus indexing, but in light of the time and the complexity of this, I just want to thank you guys for coming. I would like to talk with you afterwards.

Mr. FINGERHUT. Also, because of the time, I will demonstrate that Congress can exercise abstinence and I will restrain myself from asking questions.

Thank you, very much for your testimony. Thank you also for your patience with us this morning.

If there is no other business to come before the subcommittee, then the hearing is adjourned.

[Whereupon, at 12:15 p.m., the subcommittee was adjourned.]

APPENDIX

STATEMENT OF HONORABLE SAM GEJDENSON, CHAIRMAN OF THE SUBCOMMITTEE ON ECONOMIC POLICY, TRADE AND ENVIRONMENT

This is the last in a series of 5 subcommittee hearings that will enable us to mark-up a re-write of the Export Administration Act by late January of 1994. These hearings have, thus far, spawned two interesting legislative proposals, one introduced by Mr. Roth and Mr. Oberstar, and one introduced by Mr. Manzullo, Ms. Cantwell and others. These bills will be given serious consideration as we prepare our re-write.

The Administration has promised us a bill of its own by the end of November. We very much look forward to receiving that proposal and integrating it into our re-write. We fully anticipate working closely and cooperatively with the Administration at every step of the way throughout the legislative process. President Clinton's recent decontrol of computers was the most significant reform in export controls at least since the end of the Cold War. It reflected a recognition of what is and what is not controllable, and the need to focus our efforts on multilateral export controls imposed on chokepoint technology.

Today's hearing brings together those in the private sector who have not yet had the opportunity to present their views to the Subcommittee. We had invited the Administration but because it is still working toward a November 30, date, its final position was not yet available.

Today's hearing brings together those in the private sector who have not yet had the opportunity to present their views to the Subcommittee. We had invited the Administration but because it is still working toward a November 30, date, its final position was not yet available.

The setting for this hearing will be provided by David Richardson of the Institute for International Economics. Mr. Richardson recently issued a study on behalf of Fred Bergsten and the Institute which found that up to \$30 billion per year in lost exports can be attributed to export controls. Given our concern with unemployment in general, and the loss of high paying jobs in particular, anything approximating the loss of \$30 billion in exports must be addressed immediately.

TESTIMONY OF THE HON. BILL THOMAS
SUBCOMMITTEE ON ECONOMIC POLICY, TRADE AND ENVIRONMENT
November 18, 1993

Mr. Chairman, thank you for providing me with the opportunity to testify on behalf of my legislation to end the export ban on Alaska North Slope crude oil, H.R. 543. I applaud the decision to conduct a comprehensive overhaul of the Export Administration Act (EAA). The end of the Cold War gives us an opportunity to enhance the ability of U.S. businesses to compete in the arena of international trade. I hope, however, that the Subcommittee will consider repealing the ban on exporting Alaska North Slope crude oil as well as revisions in our control over high technology exports.

A look at my district will give you an idea of why I have sought repeal of the ban for years. In 1992, California crude oil production totaled nearly 331.7 million barrels. Nearly 67% of this oil, or 221 million barrels, was produced in a single county, the County of Kern. That makes Kern County a larger oil producer than Oklahoma.

Kern County oil, however, has some unique characteristics that make it expensive to produce. It is typically heavy oil, a thick, viscous substance defined by the industry as under 20 degrees API gravity. It does not flow, it oozes. Production requires investment in thermal enhanced oil recovery equipment that makes production possible by heating reservoirs enough to make this tar-like oil accessible.

Steaming is expensive. Average costs for well-known companies range from \$4.50 to \$14 a barrel, according to a quick survey I made yesterday, and often run from \$7 to \$10 dollars for even big companies. When you consider that oil was priced at \$9.75 a barrel last week in Kern County, you can understand why pricing issues are so important to local producers, especially the independents who must decide whether wells are profitable or need to be closed solely on the wellhead price.

While I am sure most of your attention has focused on the export of high technology products, the oil industry has also been hampered by the provisions of the Export Administration Act in a way that costs thousands of high-paying jobs. The ban on the export of Alaskan crude oil has created a distorted market for heavy crude oil in both California and Alaska. The bulk of the Alaskan oil, due to the costs of transportation to the Gulf Coast and the eastern seaboard of the U.S., remains west of the Sierra Nevadas.

Last year, refineries in California received 301 million barrels of crude from Alaska, nearly doubling the amount of oil in California. The latest figures for 1993 are almost identical. Through June of this year, California production is approximately 146 million barrels (170 million including federal production), while receipts of Alaskan oil are around 151 million barrels.

At first glance, this does not appear to be a problem. Many consumers would be glad to live in a state that is "awash" in oil. Unfortunately, not all oil is created equal. The majority of the oil produced in California, as well as in Alaska, is not the "light, sweet" crude that is produced in West Texas and the and the Organization of Petroleum Exporting Countries (OPEC). Such light, sweet crude is easily refined into gasoline and a variety of other products. The bulk of the oil produced in California and Alaska, by contrast, is much too heavy to yield large amounts of gasoline without extensive investment in extremely costly refining equipment. Heavy crude does yield large quantities of residual fuel oil, which cannot be used in California because of strict air quality rules, and industrial lubricants. As a result, this surfeit of oil in California does not translate into vastly lower fuel prices for California drivers.

The oversupply does have an effect on crude prices, however.

Since heavy crude oil is more difficult and costly to recover than light sweet crudes, many producers are unable to recoup their costs of production. Major oil companies and independent oil producers alike shut in wells and lay off employees. However, while the major oil companies are able to concentrate on producing their reserves in other areas of the world, the independent producers do not have that luxury. When the price of oil dips below the cost of recovery, their businesses fail, reuniting the former employers with their former employees in the unemployment line.

Alaska North Slope crude has a significant effect on price because California becomes the dumping ground for this oil every time Gulf Coast oil prices make shipment through Panama unprofitable. Shipping the oil to the Gulf costs about \$5 a barrel, so its sale in California will inevitably require a discount. The California independent oil producers' preliminary estimate is that the crude price in California would be \$2 to \$5 higher if the export ban were repealed.

The crude glut has real impacts on American jobs. A preliminary study on the California oil industry shows we have 31,000 full time employees in the oil fields with an average wage of \$45,000 a year. Total employment related to the industry is about 70,000. Since the 1986 oil price decline, production in California has fallen by 200,000 barrels a day and taken with it 6,000 oil field jobs and another 7,000 indirect oil industry jobs.

Today, Kern County in my district has one of the highest unemployment rates in California, over 13%. Loss of oil field jobs has been a major part of the county's problem. We had over 16,000 "mining" jobs (95% being directly related to the oil industry) in 1985 but only 12,000 today. The price depressing impacts of ANS crude are part of the problem.

Preliminary figures for a study being conducted for the California oil industry shows an increase of 100,000 to 200,000 barrels/day of California production would have huge impacts on California employment. The estimates are that such an increase would create 6,000 to 15,000 new jobs in California oil fields and related industries, depending on such factors as price, production levels and level of economic multiplier effects used in the estimate. Using what could turn out to be the "worst case" assumptions, it appears that a 200,000 barrel/day increase would still create 5,500 new California jobs.

Those are new jobs we can easily reach because the same study indicates we already forego 100,000 to 200,000 barrels oil production in California today due to the export ban. The figures of lost production could even be as high as 300,000 barrels/day.

At the same time, we would gain oil reserves by repealing the ban. A study recently completed for the California Independent Producers Association indicates that as much as 10 billion barrels of oil could be added to our recoverable reserves in Alaska and California by improving the price of crude. Put that 10 billion barrels in perspective: it is the equivalent of what we originally expected from the Alaska North Slope!

The best way to resolve this situation is to reduce the amount of oil in California. My preferred solution is to stop distorting the market and allow market forces to determine where and at what price Alaskan oil is sold.

I urge this Subcommittee to give this issue careful consideration and not overlook the fact that our domestic oil industry is being harmed by this legislative relic from the days of the energy crisis. If we are truly serious about encouraging domestic production of and exploration for our natural resources, we would end this market-distorting ban on the export of Alaskan oil.

Statement of Representative Don Edwards (D-CA)
Subcommittee on Economic Policy
November 18, 1993

EXPORT CONTROL REFORMS ESSENTIAL TO THE COMPUTER INDUSTRY

Mr. Chairman:

Thank you for calling this hearing today. I applaud your commitment to reforming the arcane system of U.S. export controls. It is hard to believe that such a seemingly obscure issue could affect our economic competitiveness so drastically. Our export control policies, formulated decades ago at the start of the Cold War, cost the United States as much as \$20 billion dollars in sales annually and as many as 400,000 jobs.

The burden placed on producers as a result of current export controls impedes U.S. competitiveness in the global marketplace. U.S. export controls are inefficient and often ineffective at achieving their prime objective: to keep dangerous technologies out of the hands of unstable or hostile end-users.

We can achieve the same objectives without the excessive costs. Our export control policies must not attempt to control that which cannot be controlled. In order to be effective, controls must conform to real world conditions, and to the greatest extent possible, they must be multilateral.

As a Representative from Silicon Valley, I know from my constituents that byzantine control procedures are particularly costly to manufacturers of computers, software and related technologies. Of all export license applications, 80% are for computers and telecommunications equipment. Of the value of all export license applications, California companies account for at least 40% and as much as 75%.

This morning I will introduce legislation, the Computer Equipment and Technology Export Control Reform Act, that would update the process by which computers and related technologies are controlled to reflect changes in the international security and economic climate as well as rapid industry and product development. It is structured to meet the needs of industry without compromising the obligations of the government or the prerogatives of the President.

The Computer Equipment and Technology Export Control Reform Act would require the Secretary of Commerce to make an annual report of the level of technology widely available in the international marketplace. Unlike present foreign availability studies which look only at existing technology, this legislation would require the Secretary to report the levels of technology that will be available in the following twelve months. With rapid technological development and short product cycles, foreign availability studies must be inherently anticipatory rather than

retrospective and therefore automatically obsolete.

The need for reform was highlighted by a finding in the September 30, 1993 report of the Trade Promotion Coordinating Committee (TPCC). The TPCC recognized that "an increasing percentage of computer exports require export licenses because government control parameters have lagged behind rapid technological advances." Under thresholds in place prior to the report, exports of personal computers available at retail stores around the world, machines like Macintoshes and IBM PC's, would require validated licenses.

In light of their findings, the TPCC recommended that the U.S. persuade our allies to decontrol computers 4000 percent more powerful than the level at which computers are controlled today. In the interim, the administration unilaterally increased computer control thresholds more than 1500 percent.

This type of foresight must be institutionalized. It cannot wait for Congressional prodding or administrative whim. That is what my bill seeks to do.

My bill would also require the Secretary of Commerce to detail the objectives of all computer export control policies, analyze the successes and shortcomings of our policies in meeting those objectives and estimate the economic impact of controls. My legislation would minimize wasted effort on the part of government and wasted resources on the part of industry by making the complex system of controls more rational, predictable and accountable. This measure would benefit small businesses the most. These companies are a crucial source of creativity and employment but cannot afford the extra staff and expertise required to wade through the present bureaucratic morass.

This is not to suggest that our national security should be overlooked in favor of economic security. Manufacturers can work within an export control framework if the process is free from unnecessary obstacles and if it does not put our companies at an internationally competitive disadvantage. Our security and economic interests are compatible.

I thank the Subcommittee for giving me this opportunity to present the Computer Equipment and Technology Export Control Reform Act within the broader framework of Export Administration Act reform. I welcome the contributions of my colleagues who have submitted related legislation. Together, through active and constructive debate, we can craft a policy for the future to replace that of the past. I look forward to working with my colleagues to improve U.S. economic competitiveness while maintaining American and international security interests.

TESTIMONY OF REP. CHARLES E. SCHUMER (D-NY) BEFORE
 THE SUBCOMMITTEE ON ECONOMIC POLICY AND TRADE AND ENVIRONMENT
 NOVEMBER 18, 1993

Good morning, Mr. Chairman and Members of the Subcommittee. Let me first thank you, Mr. Chairman, for holding this important hearing today on the anti-boycott legislation of the Export Administration Act. This hearing comes during a particularly timely period. It has been two years since this Subcommittee held its first hearing on the Arab Boycott and some of the export enforcement changes resulting from that hearing are first apparent today. It is also two months after the recent Israel-P.L.O. peace accord and an appropriate time to assess whether this agreement has had any effect on the world-wide state of the boycott.

Before I start, Mr. Chairman, I want to commend you for the leadership you have shown on this issue, not only in calling these hearings, but in the legislation you have authored and supported to bring an end to the boycott.

Mr. Chairman, the Arab nations have tried by the boycott to economically strangle the state of Israel since its birth. The boycott targets not only Israeli companies, but any company that does business with Israeli companies. It even reaches companies that give to Jewish charities or have directors who are deemed pro-Israel. Hundreds of American companies are on the Arab Boycott blacklist. American companies seeking business in the Arab world are asked about their business in Israel and the membership of their boards. Last year alone, U.S. companies reported receiving 9,912 of these illegal boycott related requests from foreign companies. This is not a problem that is fading away - the boycott is alive and strong.

In the days following the Israel-P.L.O. peace accord, the Administration and Congress called on the Arab nations to finally declare an end to the boycott. For years, many of the Arab League nations told the U.S. that the boycott was based on their opposition to Israel's policies in the West Bank and Gaza. Today, that reason has evaporated and so now other pretexts are

sought and the boycott continues as aggressively as ever. The Arab League continues to move back the goal posts and demonstrates the difficulty Israel faces in trying to make peace with its neighbors, no matter what compromises it may offer.

U.S. companies are in no better shape. Despite the fact that we went to war to defend Saudi Arabia and Kuwait from Saddam Hussein, and despite repeated appeals from the Clinton Administration to our Arab allies, U.S. companies continue to be subjected to discrimination. 8,623 boycott related requests have already been reported to Commerce through September of this year. By the year's end this pace will result in a 16% increase over last year's total. And this is despite public assurances from our two largest Arab trading partners, the Saudi's and Kuwaiti's, that they were dropping enforcement of the secondary boycott against U.S. companies.

In fact preliminary figures indicate that Arab boycott activity by Saudi Arabia may be on the rise. According to new Commerce Department statistics, the number of illegal boycott requests made by the Saudi's to U.S. companies this past quarter rose by an alarming 25% over the same quarter last year. During the quarter ending September 30 of this year, 314 requests were received by U.S. companies, 64 more requests than 1992's total of 250 requests for the same period. And the overall number of boycott requests made by the Saudis from January through September this year was up by about 8% over the same period in 1992.

While boycott activity is on the rise Arab leaders are giving top Administration officials assurances that they are no longer firmly enforcing the boycott against U.S. companies. An outraged Secretary Christopher should take these figures with him on his next trip to the Mid-East, and point out these blatant contradictions to the kings of Saudi Arabia and Kuwait. And remember, these guys are monarchs and can't blame an uncooperative Congress for their promises going unfulfilled.

I will note that some exporters report that they are able to ignore boycott requests and the Saudi's and Kuwaiti's are willing to look the other way. This is not a satisfactory compromise because of chilling effect that maintaining the boycott mechanism has on businesses considering trade with Israel.

This chilling effect is clearly illustrated by a few examples. Today, not a single American bank maintains a branch in Israel, despite the fact that many have branches throughout the world. And today, despite the fact that many have hundreds of branches in obscure countries, most of the "big six" accounting firms do not even list their Israeli representatives in their annual reports. The amount of investment Israel has lost as a result of the boycott is difficult to estimate, but a recent study has suggested that over the past 40 years the total could be near \$50 billion dollars.

The economic injury to U.S. companies is also difficult to estimate. The true number of companies that never even attempt to do business with Israel because of fear of the boycott until now has been no more than speculation. But soon we may have a better idea. United States Trade Representative Mickey Kantor has asked the International Trade Commission to calculate the damage that the Arab Boycott causes U.S. businesses. The results of this study could lead to the possibility of trade sanctions, perhaps the best way to let the Arab League know we mean business. This study is perhaps the most important step the administration has taken recently to up the ante and let the Arab League know that they will have to pay a diplomatic price if they continue to press the boycott.

The Administration should also be credited with another recent success. As a result of Administration lobbying in the weeks following the Israel-E.L.C. agreement, the Arab League boycott meeting scheduled for October 24 was indefinitely postponed. These are the types of actions the Administration needs to continue to take - not just raising the issue of the boycott in the course of diplomatic interaction, but insisting on real and definite progress.

President Clinton has been strongly outspoken on the boycott in a way that has demonstrated U.S. resolve that the boycott must end. The Arab League should be getting the message that this Administration and Congress will no longer tolerate platitudes about peace while the Arab rations continue to wage this economic war.

At the same time that we need to raise this issue abroad, we need to strengthen our enforcement of the boycott laws at home. When this Subcommittee held boycott hearings in July of 1991, I announced the results of a study I had done that was harshly critical of the way the Commerce Department's Office of Anti-Boycott Compliance carried out its mission. As a result of that report and this Subcommittee and its Chairman's work, some improvements are in evidence today. In 1991 I pointed out that the number of consent agreements obtained by the OAC, representing the number of companies which agree to pay fines for boycott compliance, had dropped steadily over the years, from 45 in fiscal year 1987 to 21 in FY 1990. In 1992 the number of consent agreements was up to 30, and 37 have already been reached so far this year.

Charging Letters, which are the more serious cases which the OAC brings to Commerce's Administrative Law Judges, had hovered at just a handful in the late 1980's, and bottomed out at zero in 1990. OAC issued two charging letters in 1992 and has issued one so far this year.

My 1991 report also looked at the fines that the OAC was meting out, and there I found a similar drop. From a high in 1986 of almost four million dollars in FY 1986, penalties assessed dropped to \$830,000 in 1990. By 1992, the total was up to \$2 million, and in 1993 the total so far is \$5,817,450.

Part of this decline in the 1980's was due to the decline in the number of OAC staffers to levels 25% to 50% of the mandated level of 30 full time employees. Today, OAC has 29 full time staffers, just about its full complement.

Mr. Chairman, as you know, the investigations that Commerce initiates may ultimately lead to criminal referrals to the Department of Justice if Commerce finds that the violations may involve intentional lawbreaking. Justice then can step in to investigate further and bring criminal charges if warranted. Until 1991, Justice had received only two formal criminal referrals from Commerce. Since 1991, OAC has referred 5 cases to Justice.

Furthermore, until 1991 Commerce had never imposed a meaningful export denial. Although this penalty is considered the most serious possible penalty for a corporation, uniquely suited to be meted out by Commerce, whenever it was been used, the penalty has been temporary or been suspended. In the past year, three companies have been hit with the denial of export privileges.

These are positive signs, but additional steps are still needed:

A) The maximum penalty level which is currently \$10,000 needs to be increased to \$50,000. Today, unfortunately, the price of a \$10,000 fine is seen by many companies as the price of doing business in the Middle East. Increasing the fine will soon change that perception.

B) Commerce must coordinate its actions more effectively with Justice so that more referrals are possible and so that more of the cases referred are ready for Justice Department action. Can only 5 cases out of the tens of thousands of requests received since 1991 be worthy of Justice Department referral? And of the 5 cases referred to Justice since 1991, only one continues to be under consideration and the rest have been dropped. Last year I introduced a bill giving original jurisdiction to the Justice Department in these matters - without referrals from Commerce. This year, I think its only fair to allow the new Administration to demonstrate that it can legally train staffers to properly prepare and refer to Justice the cases worthy of attention, but I suggest that this issue needs to be monitored and perhaps revisited by the Subcommittee in the near future.

C) Finally, I have recently introduced a bill which would strengthen the anti-boycott enforcement provisions of the Export Enforcement Act by giving victims of boycott discrimination the means to recover damages suffered as a result of this discrimination. This bill, H.R. 2544, creates a private right of action that would permit a company which loses business or an individual turned down for a job to bring a suit for damages against the company that harmed them by violating U.S. anti-boycott laws. This measure would not only bolster effective enforcement of the boycott laws, but it would compensate those who suffer economic injury and I believe merits the Subcommittee's serious consideration.

Mr. Chairman, in closing, I would like to take the opportunity to correct the public record. Administration officials and editorial writers have recently been referring to the boycott as an "anachronism". I must point out that an anachronism is something that once had a proper role and legitimate purpose. The boycott is a form of invidious discrimination that never had a legitimate purpose and never had a proper role. The boycott is as offensive a practice today as it was at its inception. With aggressive pressure from the Administration and guidance from this Subcommittee, the Arab Boycott can and must be brought to an end.

STATEMENT OF THE HONORABLE DON MANZULLO, ON REWRITING THE EXPORT
ADMINISTRATION ACT

Mr. Chairman, I commend you for holding hearings on this topic today. While everyone focused on the NAFTA vote last night, few people realize the job creating potential of a very simple idea—bringing common sense to our export control policy.

With the Vice President talking about reinventing government, here is one simple idea that will actually save the government money and ease the regulatory burden on our nation's businesses. All the government has to do is get out of the way. That simple act alone will create hundreds upon hundreds of jobs in the high-wage export sector in this country.

Mr. Chairman, I know it's a top priority of yours to report out a revamped export control system. I pledge to work with you, Mr. Chairman, to build a new export control system to cover items that are truly of concern for nuclear and missile proliferation. These "choke point" technologies should remain under strict controls, while the export of civilian "non-choke point" technologies should be encouraged.

In that spirit, Mr. Chairman, Representatives Maria Cantwell, Toby Roth and I introduced sweeping legislation to remove computers, semiconductors, and telecommunications equipment from our export control laws, excepting those going to a terrorist or embargoed country or those products destined for a military application. I would welcome the comments of the witnesses before us on this legislation.

The rewrite of the Export Administration Act is the most important legislation that this subcommittee can act upon this Congress. I look forward to the testimony of the witnesses before us for further suggestions on reform. Thank you, Mr. Chairman.

ECONOMIC COSTS OF US EXPORT CONTROLS

A Statement by

J. David Richardson

Visiting Fellow

Institute for International Economics

Professor of Economics, The Maxwell School of Citizenship
and Public Affairs, Syracuse University

Before the

Subcommittee on Economic Policy, Trade and Environment
Committee on Foreign Affairs

US House of Representatives

November 18, 1993

Overview

Export controls were far and away the most significant of the various US "export disincentives" according to my recent comprehensive study, Sizing Up U.S. Export Disincentives.¹ This alone is old news. The size and incidence of their effects on the US economy was new and disturbing news -- for growth, for jobs, and for technological dynamism.

I found that

- National security export controls on dual-use goods almost surely cost \$20 billion of US exports annually prior to recently proposed liberalization, and may have cost as much as \$30 billion.

¹Sizing Up U.S. Export Disincentives is published by the Institute for International Economics.

- Well over half of these losses fell on exporters of machinery, instruments, electronics, transportation equipment, and other high technology goods. These goods are growing especially fast in world trade. They come from sectors in which the United States has a strong natural advantage in world competition, but has significantly hobbled itself.
- Jobs in these and other export sectors are estimated by US government agencies to pay 17 percent more than average jobs in manufacturing, and almost 40 percent more than jobs in import-sensitive sectors. In brief, export controls have foreclosed high-value jobs, just as surely as protectionism has preserved low-value jobs.
- Export losses fell disproportionately on small firms. They were unable to bear upfront fixed costs, such as creating an export-licensing office, even before the first goods are shipped. They were unable to avoid US export disincentives by sourcing from overseas affiliates the way that large exporters did.
- Even large US exporters were probably made smaller by the way that export controls foreclosed markets to them. Their R&D and other fixed costs were spread over smaller volumes and their cost competitiveness suffered all over the world. Estimates of such "contagion losses" would raise the size of export shortfalls even further above my \$20-30 billion figure.

- Over half the export losses fell on five US states. California alone accounts for one fifth of US exports of the leading sectors most burdened by export controls.² The other big four are Texas, Washington, Michigan and New York.

My book is not a full benefit-cost study. It focussed only on the export cost of US policies that created export disincentives. I made no attempt to assign dollar values to the valid and important benefits of these policies.⁴

No one doubts the existence of benefits from US national security objectives. Because of these benefits, many of our key trading partners have joined the United States in rigorous export control disciplines that are governed by multilateral regimes. The sacrifice of some exports makes eminent sense for the security it buys. Export controls contributed importantly to the demise of historic Cold War rivalry.

But the world has changed, and not just because the Cold War is over. Capability to produce chemical and biological weapons depends on a wide array of commonly available inputs and well-known

²And for 25-40 percent of export license applications, according to calculations by some experts.

³Export growth of all manufactures from these five states was 40 percent between 1988 and 1992; from the rest of the United States, it was 51 percent.

⁴Nor did I try to size up any foregone US exports of pure weapons, which raise special problems of measurement and security. Export shortfalls from weapons controls would boost the estimates even higher.

techniques, and depends much less on procurement of a few strategically vital products. Sourcing capability has grown in China, Eastern Europe, Russia, and smaller industrial countries. They can now supply even some of the leading-edge products to build missiles and nuclear arms, and to counter the intelligence activities of the United States and its allies.

Moreover, our allies have become increasingly impatient with the existing export control regimes. New suppliers have not yet been persuaded to become full members. The United States remains the most aggressive controller, with many multilateral controls the result of unilateral US pressure. Parts of the United States government still maintain that unilateral denial of exports is a desirable way to show leadership against weapons proliferation and abuses of human rights.⁵

Most important among changes, it is no longer clear that export control is the most effective way to assure national and global security, by comparison to controls on end-uses and end-users.⁶

The recently announced intention of the Clinton Administration to negotiate more liberal export controls on computers and

⁵For example, such "need to lead" language appeared in the fact sheet accompanying President Clinton's September 27 speech to the United Nations in defense of unilateral export controls.

⁶Two reports from the National Academy of Sciences document and support this position: Finding Common Ground: US Export Controls in a Changed Global Environment, 1991, and The New Era in U.S. Export Controls: Report of a Workshop, 1992, Washington, DC: National Academy Press.

telecommunications equipment is therefore a commendable accommodation to the new reality of global security. If our regime partners agree,⁷ it will be a significant reassertion of US policy concern for our economic security -- the impact of leading export sectors on the prosperity of our economy as a whole, and through it, on US global leadership.

My study concludes that the cost to American exports of attempting to maintain moral high ground on export controls is much larger than most people realize. The best unilateral policy is abstinence. Our government should, at the very least, be required to publicly report control-related export sacrifices and the related losses of domestic economic momentum and high-quality jobs. It should also be required to evaluate whether the vital policy objectives of export controls were really realized, or whether the actions wound up as mere moral posturing.⁸ It's notable that the Competitiveness Policy Council, in its two annual reports to the President and the Congress,⁹ has included these among its trade-policy recommendations.

No one argues for mindless mercantilism. But the United States has been unduly nonchalant about exports, which have become

⁷Until they do, on both computers and telecommunications equipment, it is hard to guess what share of the estimated US export shortfalls will be erased.

⁸The same reporting and evaluation obligations should be attached to US foreign-policy sanctions.

⁹Building a Competitive America (March 1992) and A Competitiveness Strategy for America (March 1993).

a leading engine of our modest economic growth (40 percent of all output increases between 1985 and this year). I think it's time to re-emphasize how strong export performance is a catalyst for strong overall performance.¹⁰ It's notable that the Administration seems to agree in crafting the national export strategy recently proposed by the Trade Promotion Coordinating Committee.¹¹

Industry, Jobs, and Trading Partner Export Controls

My study documents why export controls are particularly potent export disincentives (XDs), especially in high-technology sectors.

By contrast, I do not find that antitrust, antiboycott, environmental, workplace-safety, or other regulations are strong US export disincentives. Nor does US reliance on direct taxes (ineligible for border adjustments) or inadequate US export promotion deter US exports much. Even moderate export disincentives such as the inadequacies in US official support for export finance and in product-liability procedures do not come close to export controls in the export sacrifices they impose.¹²

¹⁰See Sizing Up U.S. Export Disincentives, pp. 19-29.

¹¹Toward a National Export Strategy (September 1993).

¹²Documentation in my study involved three methods: surveys of experts and compilations of case studies, "benchmarking" of industry reactions to various types of export disincentives, and statistical estimation of export shortfalls across industries, trading partners, and US states. One of the most remarkable

Export controls and other "demand-constricting" XDs are more potent than "cost-inflicting" XDs (such as regulatory burdens) because they cannot be passed along or "shared" with suppliers, customers, and workers. In high-technology industries, there is even a pernicious tendency for export controls to reduce competitiveness in both controlled and uncontrolled markets, because fixed costs like R&D cannot be as broadly spread.¹³ That helps also to explain why XDs that inflict fixed costs on firms (such as legal/administrative support for export licensing departments, or special design features that inhibit counter-intelligence) are more potent than those that inflict variable costs.¹⁴

Thus, for example, I find 1991 US export shortfalls to COCCOM-targetted countries especially large in high-technology machinery, transport equipment, and instruments, where many controls bind.¹⁵ US exports were only 1/5 of their 1991 potential in these high-

conclusions of the book is that the three methods produced the same qualitative conclusions about the relative importance of US export controls to other disincentives.

¹³For the same reason, high-technology exporters cannot avoid business losses from export controls by increasing their competitive effort and success in uncontrolled markets, as was done, for example, by US exporters of grain after the 1979-80 embargo of exports to the Soviet Union.

¹⁴See especially the last half of Chapter 4 of Sizing Up U.S. Export Disincentives.

¹⁵Standard International Trade Classification categories 7 minus 78 (road motor vehicles) plus 87 and 88. See Sizing Up U.S. Export Disincentives, pp. 102-105.

technology sectors (potential was estimated from normal exports to all other trading partners), whereas they were 1/3 of their potential in all other sectors.¹⁶ Our most important European COCOM¹⁷ partners and rivals had both smaller export shortfalls according to my calculations, and roughly comparable shortfalls in exports from high- and standard-technology sectors. German exports to COCOM targets, for example, were more than 2/5 of their 1991 potential in high-technology sectors.¹⁸

Because export controls raise both overall and average fixed costs for US exporters, they have two further effects; both effects undermine dynamic impetus and incentives for research and development. Within each firm, export control costs (in essence) "compete" with more fundamental fixed costs, among which the most important are R&D costs. Among firms, the fixed costs of export control procedures make it difficult for new, small firms to even consider exporting. Any increases in such costs can drive existing small exporters out of business entirely. Research and development is thus discouraged both because each exporting firm does less, and to the extent that the most innovative, dynamic firms tend to be small and closed out of exporting.

¹⁶Export controls fall less heavily on other sectors, although they, too, are subject to them in principle, especially under the Enhanced Proliferation Control Initiative (e.g., chemicals).

¹⁷COCOM stands for the Coordinating Committee on Multilateral Export Controls.

¹⁸The German figures are for West Germany only, and do not include exports to the former East Germany. Japan's estimated 1991 shortfalls, unlike Europe's, were more comparable to those of the United States.

With regard to jobs, the study argues that export controls have their most important ongoing effects on the types of jobs that Americans occupy, not on the overall number available in the economy. Export-related jobs are on average higher-skill, higher-pay (17 percent, cited above), and higher-mobility jobs than those elsewhere in the economy. They are the high-value, high-reward jobs that everyone prefers. They are often places to absorb cutting-edge technological training, because US exports take place in sectors where our "human capital" leads the world (e.g., aerospace, medical, and chemical engineering; software).

The unfortunate effect of unnecessary export controls is to "dumb down" the array of jobs available to Americans. This happens naturally, because exports become a smaller share of US activity -- but it also happens, as documented in my book, when would-be US exporters find it more attractive to source sales from overseas affiliates.¹⁹

Defense conversion has recently hit US exporters of dual-use products with another source of "demand constriction." Governments are no longer purchasing as much. This may accentuate and attenuate the dampening effect of export controls on the availability of these desirable jobs, making rational economic relief from controls an even higher priority.

¹⁹See Sizing Up U.S. Export Disincentives, pp. 14, 16, 25-28, 48, 57-58.

Principles for Policy Reform

In light of my research, and in considering the re-writing of the Export Administration Act (EAA), I recommend three emphases and re-emphases in policy principles. I then propose more detailed policy practices to implement them, and policy tactics and instruments when appropriate.²⁰ In most cases, my recommendations are aimed at reducing the economic cost of US export controls relative to some desired level of effectiveness in achieving their objectives. Assessing the national benefits of controls for these objectives was, I repeat, beyond the scope of my study.

I first underscore two policy principles that have been emphasized repeatedly by expert National Academy of Sciences panels and prestigious groups such as the Competitiveness Policy Council.²¹

U.S. export controls, whether for national security, anti-proliferation, or foreign policy should be implemented with:

- (1) maximum **multilateralism**, and minimal unilateralism; and
- (2) increased **sensitivity to economic security and to foreign availability**, especially because controls fall so heavily on leading sectors of the U.S. economy.

In addition I propose a third broad principle, because anti-proliferation concerns have themselves proliferated, and because

²⁰I believe, however, that institutional experts in each area can extend, refine, and sharpen the instrumental recommendations more effectively than I can myself.

²¹See notes 6 and 9.

the demarcations between anti-proliferation, national security, and foreign-policy objectives have become increasingly blurred.

US export controls should be accompanied by:

(3) **auxiliary mechanisms** to enhance target efficiency, some corrective, some supplemental.

A number of policy practices would help the United States adhere to these three principles. First and most obviously, I endorse the strong leadership that the United States has exercised in COCOM, the Nuclear Suppliers Group, the Missile Technology Control Regime, and the Australia Group. But the United States must go even further. Liberalization of COCOM controls and their domestic US counterparts in 1990 only succeeded because the President let it be known within his own government and abroad that this was his high priority. The same must happen again to alleviate negotiating inertia and bureaucratic gridlock over export jurisdiction. President Clinton has an ideal opportunity for active initiative as you help re-write the Export Administration Act.

Second, the United States must be extremely cautious about its ability to encourage trading partners to follow unilateral initiatives taken in the name of symbolic leadership. The Enhanced Proliferation Control Initiative was launched in 1991 without enough of such caution, in part to show our trading partners that the United States was serious about depriving proliferators of easy access to weapons-building materials and technology. Almost two years later, neither the deterrence nor the fruits of such

leadership are clearly detectable. Explicit trade in arms and dual-use sub-components continues to grow,²² and presumably in materials for weapons of mass destruction as well. Membership in the multilateral antiproliferation control regimes has been expanding only slowly.

Third, the EAA should require timely annual reports on the quantitative effects of US export controls on US export competitiveness.²³ Sizing Up U.S. Export Disincentives provides some methods for doing so. Such reports should include sectoral and product detail, and should also attempt to size up effects of export controls on US direct investment and alliances abroad and on foreign direct investment and alliances in the United States.

The fourth and fifth practical recommendations are complements. The fourth recommendation is that the United States should rationalize and broaden its foreign-availability test for national security controls, and extend it to foreign policy sanctions and anti-proliferation controls. The Export Administration Act currently disallows unilateral US export controls for national security when comparable goods or technology are available from uncontrolled suppliers (or presumably by diversion from uncontrolled buyers). But petitions must be filed by exporters, procedures are burdensome, processing is slow and unpredictable, and the basic posture is retrospective (looking

²²The Economist, 2/20/93, pp. 19-22 and 6/20/92.

²³See the 1993 report of the Competitiveness Policy Council.

backwards at foreign availability in the recent past).²⁴ Foreign availability investigations should be an ongoing, forward-looking, comprehensive, intelligence gathering exercise -- for the sake of both economic and national security.

When foreign availability is determined, then no additional national security is attained by maintaining export controls. In such a case, the economic costs are infinitely larger than the security benefits. Controls are then merely ineffectual symbols of US aims. Economic security is sacrificed; national security is not attained. In my opinion, it makes little sense to oppose a more accessible and refined availability test. I believe, on the same grounds, that such tests should be extended to foreign policy sanctions and anti-proliferation strictures.²⁵ The United States cannot afford economically costly symbolism, especially when the costs are borne by its most dynamic, technologically competitive sectors.²⁶

Fifth, the EPA should enhance the effectiveness and predictability of those controls that remain, especially with

²⁴See Sizing Up U.S. Export Disincentives, p. 35. It is for this reason that foreign availability reports are sometimes described as "tombsstones."

²⁵Especially for software and some chemicals, but also for some missile parts, commercially available goods and technologies have dual uses in weapons. Such goods and technologies simply cannot be controlled, implying practically that availability tests might drastically shrink the length of control lists for anti-proliferation.

²⁶In practice, such broadening of the foreign-availability test should also include indexing of the critical specifications of computers and other equipment with rapid technological change.

regard to anti-proliferation. The result sought, in conjunction with the fourth recommendation, would be the same or better level of benefits for controls, but lower economic costs. I think that this fifth recommendation has three tactical thrusts:

(i) re-assignment of at least some responsibility for monitoring end uses and end users of US exports to qualified US government agencies.²⁷ Currently under the EPCI guidelines, exporters themselves are responsible (de jure) for virtually all monitoring and intelligence. Yet these are functions for which their own capabilities are limited, and functions that divert resources from areas of corporate competitive strength.

(ii) official support for technological and commercial innovations in intelligence capability, especially devices for monitoring at a distance.²⁸ Current technological inadequacies, coupled with the assignment of responsibility to exporters for policing end uses and end users, leads all too often to export restriction equivalent to an embargo. Firms consider certain products to be simply too risky to export to certain customers.²⁹

(iii) increased efforts to make monitoring and intelligence

²⁷For example the U.S. Department of Justice, the US Customs Service, and the Central Intelligence Agency. The effect on the budget deficit would be minimal if, at the same time, excessive controls were eliminated and administrative control procedures were streamlined.

²⁸Examples might include satellite photography, encryption-defeating software, and monitoring mechanisms that cannot be separated from a product (such as a microprocessor) without destroying it.

²⁹See Sizing Up U.S. Export Disincentives, Ch. 2-3.

multilateral functions. Economic burdens on exporters for policing their own shipments could be reduced still further by inter-governmental cooperation. The International Atomic Energy Agency makes inspections under the Nuclear Non-Proliferation Treaty (of admittedly arguable effectiveness), and a UN Agency will be charged with similar tasks under the 1993 UN Chemical Weapons Convention. Cooperative inspection and verification should become the primary instruments of a new multilateral security regime, with both sanctions and incentives to encourage the broadest membership possible.

The Administration seems poised to undertake an imaginative export-centered growth program. Minimizing the economic drag of export controls is a crucial part of the program, and the new Export Administration Act will be the prime vehicle for doing so. I commend your efforts and wish you success.

Testimony
Before
The Subcommittee on
Economic Policy,
Trade, and Environment
Committee on Foreign Affairs
U.S. House of Representatives
by
Dr. Paul Freedenberg
International Trade Consultant
Baker & Botts, L.L.P.
On Behalf of
CBEMA - Computer and Business
Equipment Manufacturers Association
November 18, 1993

At the dawn of the Atomic Age, Albert Einstein said, "Everything has changed about the world, except the way that we look at it." The same could be said for export control policy today.

Mr. Chairman, members of the Subcommittee, you are about begin a major rewrite of the Export Administration Act in a time of profound change. One strong indicator of that change is the fact that CoCom, the international institution which governs technology transfer, is about to transform itself from an organization designed to deny strategic technology to the Communist World into an anti-proliferation organization including Russia, its former enemy, within its membership. Add to that the fact that the pace of technological change has, if anything, increased dramatically in recent years, and the result is a world which bears no resemblance to the one on which our export control policy was based for the past 44 years.

It is time to adapt the Export Administration Act to this new world.

I am speaking on behalf of the Computer and Business Equipment Manufacturers Association ("CBEMA"), whose membership includes our nation's highest technology companies, accounting for \$270 billion in domestic sales and 4.5 percent of our country's GNP. They conduct 20 percent of our industrially funded research and development, and they employ one million people in the United States, but they derive nearly 50 percent of their revenue from overseas business. Thus, CBEMA members are as export-oriented as any industrial sector in America, which means that the laws governing exports vitally affect their operation. CBEMA has a number of suggestions regarding

provisions that ought to be included in the new Act. But first let me take a few moments to sketch out the new technological environment in which the computer industry operates.

The Pace of Computing Technology and Controllability

The average shelf life of a computer is now under 18 months. Indeed, more than 70 percent of 1992 revenues for the U.S. computer industry came from products that did not exist two years earlier. This figure is expected to exceed 80 percent by 1995. What these statistics mean is that the computer industry must get its products to market quickly or risk missing an entire product cycle, a potentially debilitating development.

The most important element in President Clinton's export control reforms put forward in the Trade Policy Coordinating Committee report of September 30 is that rather than reacting to the market as it is, it anticipates the large-scale introduction of the new Reduced Instruction Set Computing ("RISC") technology.

Historically, the power of personal computers and workstations as measured by Composite Theoretical Performance ("CTP") was based on the power of the microprocessor resident on the computer's "motherboard," the computer's main electronic circuit card. The microprocessor's CTP performance was the computer's CTP performance.

At the time of the last export control level update -- the 1991 "Core List" exercise in CoCom -- the most powerful microprocessor then in mass production and available in quantity through numerous retail outlets and other marketing channels worldwide was the Intel 80386 chip. Its CTP was rated at 12.4, so decontrol limits were set at 12.5. By early 1993, Intel, as an example, had introduced the 80486 chip with a CTP of

22. And in 1993, most American semiconductor and computer exporters began to introduce RISC-based microprocessors at CTPs of 66 and above. Here is a chart that will highlight the chronology:

Table 1

• January 1993	Intel 80486	22 CTP
• September 1993	Intel Pentium	66 CTP
• September 1993	Power PC 601	107 CTP
• December 1993	DEC Alpha	194 CTP
• Within the next two years,	individual chips with CTPs of 350 or more will be on the market	

• **The Logic Behind the Latest U.S. Proposal to CoCom**

The September 30, 1993 TPCC export-control-level decisions address the fact that the IBM PowerPC 601 and Pentium-based machines will be available by the millions around the world during the fourth quarter of 1993 and throughout 1994. These are desktop machines of enormous power and small size. Indeed, almost all would fit in an automobile trunk. Given their small size and their ubiquity, trying to control machines at previous control parameter levels made no sense. The President's announcement and the anticipated CoCom decisions are the first time that the computer industry has seen a decision by those making export control policy to anticipate where computer technology is going and what is controllable. This is a major shift in the U.S. Government's approach to the issue and a welcome one.

These announcements make sense for another reason — semiconductors are not controlled at all except to CoCom-proscribed countries. American chip manufacturers have developed numerous vendor relationships with customers around the world in many

countries, including many that are outside CoCom. This is the principal vehicle by which "clone" computers appear on the worldwide market so soon after American computers incorporating the same chips first appear. To attempt to control computers using these chips, while allowing non-controlled computers using the same chips to be developed and marketed abroad, only harms American exports – at the critical time of initial market availability when computer sales are essential to winning market share, follow-on orders for peripheral equipment, customer loyalty, and revenue to drive needed investment in research and development.

To link export control levels to this pace of semiconductor and computer change makes sense, but the old assumptions on how to establish such levels (*i.e.*, equating computer and microprocessor performance) are already being rendered obsolete.

● New Computer Architectures

The dynamics of the worldwide general purpose computing market are driving changes in computer architectures, especially in the personal computer, workstation, and networked computer marketplaces. A major reason for these architectural changes is that customers wanted a cost-effective way to replace obsolete technology with newer technology in order to upgrade their systems. In the past, upgrading a PC or workstation meant having to replace it with an entirely new one – an expensive idea, especially in an era where product innovation cycles occur in six-to-eighteen-month cycles.

Therefore, the new PCs and workstations now appearing in the marketplace permit less costly upgrades by replacing old microprocessors or motherboards with new chips or boards containing newer microprocessors. Instead of spending several thousands of

dollars to keep pace with technology, a customer need spend only a fraction of that. In addition, the new machines include expansion slots for adding more than one microprocessor, thereby enabling the customer to expand his or her computing power simply by adding more chips. Once this happens, the old assumption that the CTP of the computer equals the CTP of a single microprocessor becomes outdated. A customer simply buys additional chips, either directly from a vendor or through some other electronics outlet, and thereby gets more power from the machine. It is as simple as snapping in a new board, and the new boards are small enough to fit in a briefcase.

Today's personal computers and workstations typically provide for four expansion slots. Silicon Graphics machines already provide for up to sixteen. Other companies plan multiples of this number in their next generation.

Parallel Computing

As early as the mid-70s, computer scientists recognized that the laws of physics were becoming a barrier to future progress in semiconductor technology. It was well understood that in order to make semiconductors (especially microprocessors) more powerful, the size of the circuitry on a given chip must become smaller. Longer circuits mean that it takes more time for electronic signals which operate at the speed of light to get from Point A to Point B, thereby slowing computer performance. These scientists understood that as we started to manufacture sub-micron (visible only through powerful electron microscopes) circuit-based semiconductors, we would also begin to press the limits of physics governing the speed of light.

Sub-micron circuitry means that chips perform their operations in nanoseconds and even faster speeds. A nanosecond is the time in which light travels about two feet. You can get even faster speeds from even smaller circuitry, but at some point in time, you begin to approach the limits of physics. You cannot go faster than light.

This the problem that computer scientists faced. They concluded that if you cannot change physics laws, then you must change the nature of problems that computers work on. Their solution: Break the problem you're working on into smaller units, have several computers work on the component elements of the problem at the same time, piece the results that these computers arrive at back together and thereby arrive at the conclusion to the overall problem. This is the approach used in "parallel computing."

At first, parallel computing was only performed by large mainframes like Cray systems and vectored IBM systems. But as technology has continued to improve, scientists and engineers (particularly software engineers) have learned how to make smaller computers, such as personal computers and workstations, work together in parallel. Today, many companies offer parallel systems. For example, IBM computers operate in "moderately parallel" configurations, meaning they can use up to 64 RS6000 workstations to work on a given problem. Using the CTP formula currently in effect, the CTP of a 64-way IBM RS6000 system today is 434.79.

Next year, IBM will announce for general availability the next version of their parallel product line, which will have multiples of the current configuration of workstations working in parallel. In 1995, we should see the advent of so-called "massively parallel" systems available. Remember, until the Japanese agree to new parameters, the

supercomputer definition is still set at a CTP of 195. Meanwhile, we can anticipate "massively parallel" workstations operating at CTPs in the tens of thousands available within the next two years, approaching the level of 100,000 CTP by 1995 and one million CTP by the turn of the century. Given this new technological environment, the Administration-proposed supercomputer threshold of 2,000 seems rather modest. Also, this new technology raises the question of whether it makes sense to have a special supercomputer definition at all. How does one define a supercomputer in the age of parallel processing?

As I have been pointing out, the new microprocessors, along with the new computer architectures, plus the availability of networking, have resulted in an exponential growth of computing power for 1993 and beyond. Adding still further to this explosion of computing power is the wide availability of software for "virtual parallel processing."

Computer networks are prevalent around the world, and software engineers have been working on ways to get even more power out of existing computer networks. In one area of computer networking development – which has, until now, been overlooked in the export control regulations – the use of these networks has now made it possible to use many workstations and personal computers in parallel configurations. This is so-called "virtual parallel processing."

"Virtual" computers are those in which a number of networked computers are configured through the use of software to act as a single computer. Under today's virtual parallel software, any Unix-based computer can be used in a parallel configuration.

In the United States, a commonly used virtual system is "Parallel Virtual Machine," or "PVM." PVM permits many Unix-based systems such as IBM's RS6000

machines to operate as a single system. PVM, which was developed at Oak Ridge National Laboratory, is available to users at no cost and without export control via Internet, and thousands of copies are currently in use around the world. For example, many American universities (such as Cornell, Syracuse, Stanford, Yale, and Washington University) use virtual systems for quantum physics, molecular mechanics, shallow-water dynamics, and fluid dynamics applications, among others.

It should also be noted that PVM is not the only such virtual software available around the world. It is simply the most widely used in the United States. Other such software includes Linda, Parmacs, Express, and PCN, with Parmacs being very widely used in Europe.

These virtual systems are already in widespread use globally. No export controls can stop their transfer across borders. The university community uses them widely, and since there is no CoCom country which controls the indigenous transfer of university learning within its own borders, people all over the world are already well aware of these systems and can easily access the software through Internet and other international networks.

- **Economic Impact: Incentive to Move Assembly Offshore**

American computer companies wish to maintain jobs and manufacturing in the United States. In this context, it is prudent to consider the impact that new computer architectures and customer options will have on American exports.

The underlying licensing assumption of the current policy regarding supercomputer and other computer controls is that computer systems will be shipped as a

single unit or system. However, several points should be considered about the new computer architectures:

- Microprocessors are not controlled, except to CoCom-proscribed countries.
- Multi-chip architectures mean that customers abroad can upgrade computers that have been shipped under general or distribution license simply by adding new chips or expansion boards, thereby boosting the computer's performance to levels that would, if shipped as a complete system, require a supercomputer export license. In such a case, it would clearly be possible for a customer wishing to circumvent U.S. supercomputer requirements for special security regimes as a condition of the license to purchase items on a component-by-component basis abroad. Under such circumstances, the impact on U.S. assembly operations could be significant, since there would be an incentive to buy clones and separate chips and boards and a disincentive to buy a complete system from an American manufacturer or vendor.
- A similar situation exists in parallel systems architectures. Assume that a parallel system is shipped without individual license from the United States, because it falls within the distribution license or the supercomputer control parameters. The system already has the high speed switch and software that makes invoking parallel operations possible. If a customer wishes to upgrade that system, then he or she

need only acquire additional workstations (also available under general or distribution license) to upgrade the system to "supercomputer" level without having had to receive a U.S. export license. Again, an incentive is thereby created to move U.S. assembly offshore at the cost of American jobs.

Clearly, the Congress should consider the potential impact that special supercomputers licensing conditions could have on American employment, especially since there are so many valid substitutable approaches available to customers that render the control system ineffective.

CBEMA's Legislative Proposals

Given this radically new technological environment, CBEMA has a number of suggestions. To provide an overall framework for the new Act, CBEMA endorses a proposal on which the Computer Systems Policy Project ("CSPP") has been working. The CSPP is composed of the Chief Executive Officers of America's largest computer companies. CSPP suggests that a new theoretical structure for control should be established in order to guide policymakers in composing the list of controlled products and technologies. That list should be organized around the following policy goals:

- preventing proliferation of weapons of mass destruction (nuclear, chemical, and biological weapons, as well as ballistic missiles);
- preventing countries and groups that pose a significant threat of aggression from obtaining advanced technology and products that would directly and

significantly contribute to an increase in their advanced weapons capabilities;
and

- using multilateral controls against violators (including countries as well as non-national entities) of international agreements or international norms of behavior.

CBEMA believes that this new framework meets these goals, and will, consequently, contribute to national security and the prevention of international terrorism, without undermining U.S. security through unnecessary limits on export activity. The organizing principles are as follows:

- Proliferation Essential Products and Technologies, or "PEPTs"

The Administration should identify PEPTs, where there is a direct and substantial nexus between a product/technology and proliferation, and that the product/technology must be one without which an end-product of proliferation concern cannot be made. Products/technologies that are merely useful, but not necessary, would not be PEPTs. Also, to be a PEPT, a product/technology must be controllable, meaning it cannot be obtained from non-controlled sources and cannot be replaced by an appropriate and reasonable available non-controlled substitute. PEPTs would require individual licensing by the United States and multilateral cooperation.

- Non-Proliferation Essential Products and Technologies, or "NonPEPTs"

NonPEPTs would include all products/technologies that do not meet the PEPT criteria, except humanitarian items. These products would be uncontrolled, except for multilateral controls and controls aimed at terrorist regimes or specific entities. Re-

export controls on NonPEPTs would also be limited to those that are multilateral or aimed at terrorist regimes or specific entities.

- Humanitarian Products

No licensing would be required on these items which would include medical, food, and other humanitarian supplies.

CBEMA Priorities for the Interim Period Until the PEPT Framework is Adopted

The PEPT structure should provide an analytical framework study for the new EAA. It moves export control decisions away from the old East-West strategic context and into a new emphasis on preventing the proliferation of weapons of mass destruction. Nonetheless, there are other elements that CBEMA feels ought to be part of any new Act, particularly as long as we continue to control exports within the context of the current export control system, or if the PEPT framework is not adopted for the EAA rewrite. They are as follows:

- **CoCom/5(k) License-Free Zone**

CBEMA has long supported the concept of requiring no U.S. licenses whatsoever for exports to America's closest allies, which account for about 80 percent of our industry's revenues, in CoCom and CoCom-cooperating countries ("5(k)" countries). These countries cooperate with the United States on export controls and serve as the basis for our insistence on export controls being applied multilaterally. I would also note that CoCom as an institution is likely to be transformed into a new proliferation-oriented regime before the conclusion of the EAA reform debate next year. CBEMA, therefore, would apply this

call for a license-free zone to the CoCom successor regime and its cooperating countries. It is important to note that some would contend that such treatment already exists, with the "minor" exception of supercomputer controls, which are subject to U.S. foreign policy controls and the U.S.-Japan bilateral agreement on supercomputer export controls. CBEMA would urge the Administration to negotiate a change to the current U.S.-Japan supercomputer agreement (unless the following objective is realized), calling for an end to supercomputer licensing to the CoCom and 5(k) countries.

- **Special Licensing for Supercomputers**

CBEMA believes that current provisions of U.S. law requiring special licensing treatment for supercomputers has been rendered obsolete by the pace of technology (see discussion above) and the fact that the Cold War is over, greatly diminishing the strategic threat. Therefore, CBEMA calls for the elimination of special licensing provisions for supercomputers.

- **Indexation**

If controls on the export of computers are to continue, then a better way must be found for the regulatory process (both in the U.S. and abroad) to keep pace with computer technology. In the past, CBEMA has supported indexing language that was in the last EAA reform bill vetoed by President Bush and is now incorporated into a bill recently introduced by Senators Dianne Feinstein and John Kerry. However, while we continue to support that approach, because it offers some badly needed temporary relief, it suffers from the fact that it is a reactive approach that analyzes only computer technology has already been brought to the market. It does not anticipate where technology is going, and given the

fact that computer product innovation cycles have shortened in some cases to as few as five to six months, CBEMA endorses two new approaches to indexing. They are:

1. A proposal that the Administration survey industry experts and determine (guaranteeing business confidentiality) at what levels computers operating at a given CTP level will be "commoditized" within the next 18 months. A product would be classified as a commodity if the Administration confirms that more than 100,000 units will be installed worldwide (both in the U.S. and abroad) over the next 18 months. Once so identified, the Administration would be required (1) immediately to decontrol that level of CTP for West-West trade, and (2) immediately propose to CoCom (or its successor) that its decontrol limit be set at that level.
2. A proposal that following an Administration study of availability of controlled computers, software, and technology to controlled countries from uncontrolled sources, as well as the economic impact of such controls (including lost sales, market share, and administrative costs of compliance), the Administration would be required to make recommendations for raising control thresholds for distribution licenses, general license (GFW), supercomputers, and validated license thresholds for controlled countries. Also, any computer with a net value of less than \$5,000 would not require a license for export to controlled countries.

The Administration has already accepted and implemented this anticipatory approach in the TPCC reforms; therefore, they should have no objection to putting it into legislative language.

- **Telecommunications**

The telecommunications industry has been urging the complete decontrol of all telecommunications equipment, arguing that there is widespread foreign availability of such equipment from sources of supply who are outside the multilateral control regime. Also, continuing telecommunications controls threatens to undermine any progress achieved on computer export control liberalization, since computer industry customers need access to modern telecommunications equipment in order to make the most effective use of their computer systems. This is increasingly important to the computer industry, because of the telecommunications demands inherent in networking and parallel processing. Therefore, we support the call for decontrol of commercial telecommunications products.

- **Encryption**

Last year, this Committee adopted an amendment which would have decontrolled "mass market software containing encryption." CBEMA recommends that this provision be included in any EAA rewrite reported by the Committee, but we would go further than last year's amendment by including hardware incorporating encryption algorithms performing at the same level of effectiveness as encryption software which has attained mass market status. CBEMA also endorses the transfer of all dual-use encryption licensing responsibility from State to Commerce.

- **Semiconductors**

The Semiconductor Industry Association ("SIA") has called on the Administration to tie control levels on semiconductors (microprocessors) directly to the control level for computers. CBEMA supports this position.

- **Conditions on Information Industry Export Licenses**

CBEMA strongly supported language in last year's EAA Conference Report that would have prohibited Administration agencies from placing technological conditions on export licenses. This amendment was intended to address cases such as those that CBEMA member companies experienced in 1990 when the Defense Department tried to have certain conditions (such as installing microcode that would cause the computer to self-destruct if certain kinds of applications were run) placed on export licenses. CBEMA continues to feel strongly that the EAA needs such language to prevent similar unilateral, anti-competitive behavior on the part of the export control bureaucracy.

Conclusion

These are CBEMA's suggestions for the EAA rewrite, Mr. Chairman. As I have noted, you have a historic opportunity to bring export controls into line with the strategic and technological realities of the mid-1990s. In an age when Russia is poised to join CoCom, and hundreds of thousands of high-speed, networked computers that fit in automobile trunks have replaced the few hundred room-sized high-speed computers of the recent past, it makes little sense to try to continue an export control system based on old concepts. CBEMA believes that the PEPT structure offers a good analytical framework for any new system, but there is much work to be done in fashioning an export control system that will govern technology transfer for the rest of this decade. In doing so, CBEMA and its member companies stand ready to assist you in any way that we can.

STATEMENT BY
THOMAS T. CONNELLY
SENIOR VICE PRESIDENT
HARDINGE BROTHERS, INC.
ON BEHALF OF
AMT - THE ASSOCIATION FOR MANUFACTURING TECHNOLOGY
BEFORE THE
SUBCOMMITTEE ON ECONOMIC POLICY, TRADE, AND ENVIRONMENT
COMMITTEE ON FOREIGN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
NOVEMBER 18, 1993

I. INTRODUCTION

Mr. Chairman, members of the Subcommittee, my name is Thomas T. Connelly, Senior Vice President of Hardinge Brothers, Inc. in Horseheads, New York. Hardinge Brothers is a member of AMT - The Association For Manufacturing Technology - a trade association whose membership includes over 300 manufacturing technology firms with locations throughout the United States. America's manufacturing technology industry builds and provides to a wide range of industries the tools of manufacturing technology including cutting, grinding, forming and assembly machines, as well as inspection and measuring machines, and automated manufacturing systems. The majority of AMT's members are small businesses.

AMT appreciates the opportunity to present this Subcommittee with our recommendations for revisions to the Export Administration Act (EAA).

II. THE STATUS OF THE U.S. MACHINE TOOL INDUSTRY

America's machine tool industry builds and provides to a wide range of industries the tools of manufacturing technology

including cutting, grinding and forming machines, universal measuring machines, and automated manufacturing systems. Although our industry is relatively small by some standards, it accounts for a very basic and strategic segment of the nation's industrial capacity. Not only does our industry build the machines essential to our military readiness and our ability to respond quickly and effectively in the event of a national emergency, it also builds the product which underlies virtually every other commercial product. Machine tools are the very essence of the industrial manufacturing process.

III. TODAY'S EXPORT CLIMATE

Exports mean economic growth for our country and good-paying jobs for U.S. workers. Since 1987, exports have accounted for 45 percent of the economic growth in the United States. Today, seven million Americans owe their jobs to exports, and recent studies have shown that those jobs earn 17 percent more than the average industrial wage in our country. Moreover, exports are critical to many key industrial sectors: 50 percent of our aircraft, 40 percent of our semiconductors, 35 percent of our computers, and 30 percent of our machine tools are exported.

United States machine tool manufacturers recognize that exporting is essential to global competitiveness and economic prosperity. For the third straight year, total U.S. machine tool exports reached a new high -- \$1.2 billion during 1992. In fact, machine tool exports have increased in each of the past nine years and have nearly tripled since 1984.

Given these statistics, can we justify or accept an export control system in this country that is outdated and overly bureaucratic and actually retards U.S. exports?

IV. THE CURRENT U.S. EXPORT CONTROL SYSTEM

For more than 40 years, the United States export control system aimed at preventing high technology and defense-sensitive products designed or manufactured in the United States from being used overseas in a manner that would adversely affect our national security interests or contravene U.S. foreign policy objectives. Since 1989, however, the world has dramatically changed, while the U.S. export control system has remained oriented to the Cold War, while futilely attempting to patch together regulations to deal with the new threats facing our nation. The result has been an export control system that fails to achieve its new objectives while, at the same time, undermining U.S. competitiveness and our reputation as a reliable supplier of goods in the international marketplace.

It is the worst of two worlds: U.S. companies lose sales and profits, but the targets of our export controls are still able to obtain the denied products from other sources. Obviously, to avoid undermining the very technological base that the Export Administration Act is designed to protect, it is time for a comprehensive review and revision of the underlying legislative authority.

V. AMT'S RECOMMENDATIONS FOR THE EXPORT ADMINISTRATION ACT RE-AUTHORIZATION

Mr. Chairman, this Committee has a golden opportunity to make a significant contribution to increased U.S. exports, economic

growth, and jobs in the remainder of this decade. The EAA is up for re-authorization during the 103rd Congress. AMT has a number of suggestions; some have already been considered, some are new. Indeed, some of the proposals -- for example, indexation, Commerce role at COCOM, Commerce/State control list dispute resolution, and trade shows -- were agreed to in the 1992 EAA Conference Report. Despite this consensus, the reforms failed to be adopted, and AMT believes that these reforms must be at the core of any new legislation.

- **Unilateral foreign policy controls should be strongly discouraged. A strong bias should be created towards reliance on multilateral controls.** The U.S. machine tool industry is still suffering the effects, in terms of lost market share and lost reputation, of the foreign policy controls imposed on the Kama River truck plant in 1979. Because of those controls, U.S. machine tool builders lost a market in which they were the dominant supplier during the 1970s. But, in addition, because they were forbidden to service their machines or even to supply spare parts, they developed a reputation within the entire Soviet market as an unreliable supplier. That meant that U.S. companies were not asked to bid on projects in which all of our other COCOM allies participated. Markets worth billions of dollars were effectively abdicated during the late 1970s and 1980s. Not only that, the reputation for unreliability has continued into the successor Russian market, with prospective buyers still wary of potential U.S. foreign policy controls undermining the delivery of goods and services. Russian factory managers beyond the Kama River plant

remember the dislocations caused by U.S. controls during the 1980s and hesitate to risk a rerun in the 1990s.

In machine tools -- as is the case in virtually all other sectors of American industry -- the United States no longer dominates the world marketplace. Unilateral controls, therefore, are almost always ineffective in denying the intended target the product or technology that is controlled. Our leverage to affect other nation's policies through unilateral denial is gone. Unilateral controls only serve to further disadvantage U.S. companies without materially affecting the availability of the product or technology to the target country. In the process, the immediate market and the long term-reputation for U.S. companies are destroyed.

There are extreme cases where there is no alternative available to policy-makers in order to distance our nation from particularly repugnant conduct. But the new law must be written in such a way as to compel immediate negotiations to attain multilateral cooperation and to compel twice yearly reviews of unilateral controls with tough standards to weigh the controls against the cost to American companies in terms of lost markets, lost jobs, and damaged reputations.

One way to accomplish this goal, should the current EAA section designations be retained in the new law, would be to bring foreign policy (including non-proliferation) controls within national security controls provisions (Section 5) and out of their current status within the foreign policy controls provisions (Section 6). This would assure that such controls are indeed made

multilateral while establishing a reasonable period of time for the Administration to accomplish this goal.

• It is critical that products and technologies placed on the Commerce Department's Commodity Control List (CCL) be indexed for performance, so that items are removed from the CCL as their technology becomes obsolete. The machine tool industry has had bitter experience with lack of updating. It was 17 years between the 1991 development of the COCOM Core List and 1974 when the COCOM machine tool control list had been last revised.

What occurred during that long span of time was a deliberate decision on the part of the U.S. Government to freeze the parameters on machine tool performance as a part of an overall policy of economic warfare against the Soviet Union. Other products, such as telecommunications equipment and semiconductor production equipment were similarly frozen at mid-1970s performance parameters, but it was never acknowledged to U.S. industry that this was an intentional U.S. policy. Thus, year after year went by, with a great deal of effort and, indeed, man-years of top engineers providing expertise for the Technical Advisory Committees at the Commerce Department and detailed and well-argued proposals from U.S. industry to other parts of the U.S. Government -- all to no avail for a decade and one-half. It was only after the Berlin Wall fell and our European allies began to seriously question the need for COCOM that a serious analytical effort was undertaken to bring the control list into line with the performance levels of modern technology, culminating in the Core List revisions of 1991.

The Core List machine tool parameter changes of 1991 were long overdue, and, to its credit, the U.S. Government responded appropriately to the changed technological and strategic environment of 1991. Unfortunately, no further significant revisions have occurred in the ensuing two years, despite the fact that the strategic environment has continued its dramatic evolution away from East-West confrontation and the technologies environment has continued its rapid change as well. I must note, Mr. Chairman, that the machine tool industry is beginning to experience the same lack of responsiveness from Defense Technology Security Administration (DTSA) that characterized the 17-year freeze on change prior to 1991. That is why hearings such as this one and the option of legislative relief are so necessary. The recommendations of AMT and the Department of Commerce' Technical Advisory Committee (TAC) for changes during the current control list negotiations are attached as Exhibit A. The COCOM machine tool negotiations are underway in Paris this week.

Arbitrary and opaque behavior on the part of the U.S. Government should not be allowed to continue under the new Act. In order to compel regular, periodic review of the control list, the indexation provision contained in the 1992 EAA Conference Report ought be included in any new EAA. Moreover, the Office of Foreign Availability ought be strengthened and enlarged within the Bureau of Export Administration at the Commerce Department. Currently, despite some excellent recent foreign availability determinations, that Office is in the process of being "reinvented" out of existence. It is down to less than ten staff people, and there is talk of merging it into other divisions of BXA. This is contrary

to the intention² of Congress in legislatively creating the Office in the 1985 amendments to the EAA and threatens to destroy one of the truly useful tools created to keep the list review process dynamic and responsive to industry.

AMT believes that rather than destroying the Office of Foreign Availability, the standards for determining foreign availability ought to be more clearly defined and be made more future-oriented, so that foreign availability determinations could take clear evidence of incontrovertible trends of availability into consideration. The criteria for a finding of foreign availability should be changed to reflect a more realistic view of today's global markets and fast-changing technology. Also, an adequate staff level must be re-established, shorter deadlines could be imposed for making foreign availability determinations, and the Defense Department's authority to veto such determinations (in the absence of strong evidence to disprove the determination) could be eliminated.

- The licensing process should be simplified and clear responsibility and accountability for export control decision making should be established. The current export licensing process for dual-use products or technologies involves the submission by an exporter of a license application to the Department of Commerce. If the item is destined to a controlled country, the Defense Department has veto authority over the license application. In 1979, Congress adopted language which arguably gives the Defense Department the right to review applications for exports to countries that could pose a risk of diversion to a controlled destination. Recent proposals have been made that the State and

Defense Departments should also have the right to review licenses involving the export of missile technology and chemical weapons. Although Congress has, from time to time, imposed various deadlines on the interagency review process, the practical effect of the process has been delay and confusion for American exporters.

The time has come for Congress to re-examine the rationale for the entire interagency review process. Policies and circumstances which may have required certain responses in the 1970s and 1980s may no longer be relevant as Congress establishes an export control policy for the 1990s and beyond. Is it any longer necessary for the Commerce and Defense Departments to replicate studies of the technological performance of a particular export item or the reliability of a particular end user, which is done, in any event, by utilizing reports from the intelligence agencies, or by sending State and Commerce Department employees out into the field to check out prospective applicants? Often in the past, the agencies involved in the export control process have worked at cross-purposes.

Our company had a painful experience with this interagency cross-purpose in the mid-1980s when we attempted to obtain a license for machine tools to be used at the McDonnell Douglas commercial aircraft joint venture that the U.S. Government had been working hard to establish two hours outside Shanghai. The Peoples Republic of China is projected by the Commerce Department to be the largest market for commercial aircraft in the 1990s. McDonnell Douglas's aircraft joint venture to manufacture the MD-80 and successor planes had been approved, indeed promoted, by the U.S. Government. Yet, the machine tools to build this plane could not

obtain license approval ~~from the~~ Defense Department, on national security grounds, even though the largest U.S. defense contractor would have virtual control and dedicated use of the machines and it was considered a high U.S. Government trade priority to demonstrate the superiority of U.S. aircraft technology in order to gain a foothold in one of the largest aircraft -- and machine tool -- markets in the world.

Despite repeated attempts, Hardinge has never received another order from this company, and we have been told not to bother bidding on any future projects, because of this incident. Meanwhile, competitors have supplied comparable equipment. I can assure you that our competitors did not use the proceeds of these sales to buy champagne. They used the proceeds to achieve economies of scale, to increase R & D, and to challenge us in the U.S. market to the detriment of American jobs and America's national and economic security.

Mr. Chairman, I would suggest that something is fundamentally wrong with an interagency process that can yield that result. To say that the system needs restructuring and coordination would be an understatement. Even if it is functioning well at the moment, as legislators you need to look at the underlying structure and whether it could lead to problems in future times, or future administrations.

Ideally, the Commerce Department should be given the authority and the resources to conduct its own technological reviews in order to properly reflect the President's policies through the maintenance of control lists and the issuance of export licenses. Other agencies (such as the Defense Department) should be called

upon for advice and counsel, but the final decision-making authority should be vested in a single agency -- the Department of Commerce. This would obviously reflect a more rational use of government resources and would eliminate much of the redundant and time-consuming interagency review process. As long as sufficient expertise and resources were made available, this approach should not result in any increased probability of the shipment of impermissible exports to our potential adversaries. Additionally, the concentration of technical expertise will reduce the tendency to deny a license based solely on the fact that the agency examiner lacks technical background and takes the easy way out.

If Congress decides to retain the current interagency review process, a clear interagency dispute resolution system should be legislated. Such a system would establish firm deadlines within which the Secretary of an agency dissenting from a Commerce Department decision would be obligated to escalate the dispute up to the next interagency level. Section 3 of the EAA (declaration of policy) should be amended to include a strong statement on the need for streamlining the process.

The Commerce Department should be made a permanent member of the COCOM delegation in Paris. The State Department is the lead agency for negotiations at COCOM. However, it lacks the depth of technical expertise to conduct detailed list review. Over the past three years, the Commerce Department, which does possess the necessary technical expertise, has been operating as a technical advisor to the State Department in Paris. That advisory role in Paris has worked well and should be legislated.

- Language should be adopted making it more difficult for the State Department to move items from the Commerce CCL to the State Department's Munitions List. When an item has both a civilian and a military use, the presumption should be that control is maintained under the CCL. A dispute resolution process with a tight time limit should be established, it should also be mandated that either department can bring issues into the process for resolution. Currently, the process is heavily biased towards the State Department, with an automatic presumption that any item claimed by the State Department for the Munitions List belongs on that list. Also, items should be prohibited from being unilaterally controlled under the U.S. Munitions List if COCOM controls them as dual-use items under the Industrial List.

- The current EAA exemption for one-for-one replacement parts [Section 5(e)3] should be liberalized to allow shipment without a license so long as a product is not materially changed by the new part or software; and the current parts and components exclusion [Section 5(m)] should be extended to Section 6 foreign policy controls.

- The current trade show license exception for the PRC should be expanded to apply to trade shows in all countries.

VI. CONCLUSION

Whatever export control system the Committee ultimately adopts, we urge you to include the reforms which I have outlined. The current system is badly broken and must be fixed if we are to continue to compete and to grow through international trade. The Cold War is over. Technology has diffused throughout the world. Our reliance on a slow, inefficient, and confusing export control system increases the costs of exporting for American companies and makes those companies less competitive in the international marketplace.

EXHIBIT A

AMT 10/21/93

CORE LIST OPTIONSIL 1091

1990 and 1991 COCOM High Level Meetings (HLM)
decontrolled products with performance levels as
follows:

- No more than one rotary contouring axis
- Lathes and milling machines 5 microns
- Grinding 4 microns
- Spindle runout 0.6 microns
- Liberalized separate controls on controllers to
four simultaneously controlled contouring
axes (only one rotary axis), plus imposed new
controls on motion control boards
- Decontrolled specified high volume production
grinding machines, cutter grinders and jig
grinders
- Eliminated formula for positioning accuracy
for larger machines
- Liberalized controls on coordinate measurement
machines (CMMs)
- Eliminated differential between products and
technology transfer

IL 1088

Control machines producing better than AGMA Class
13 gears

Current_USG
Position

The language on controllers should be clarified to
permit the shipment of multi-axes controllers which
securely block off customer access to software
permitting more than four simultaneously controlled
contouring axes.

AMT_Position

- A. Separate controls on controllers should be
eliminated
- B. Decontrol centerless grinders
- C. Decontrol bevel gear making machines (1088)
- D. Decontrol 5 axes milling machines with slide
accuracy worse than 10 microns
- E. Decontrol lathes with slide accuracy worse than
2 1/2 microns
- F. Eliminate references to spindle runout

TESTIMONY

of

**Boyd J. McKelvain, Chairman
Industry Coalition on Technology Transfer**

before

The Subcommittee on Economic Policy,
Trade and Environment
of the
House Committee on Foreign Affairs

November 18, 1993

Mr. Chairman, I am Boyd McKelvain, Senior Manager for International Trade Regulation, International Law and Policy, the General Electric Company. I am appearing today as Chairman of the Industry Coalition On Technology Transfer, or ICOTT. ICOTT is a group of ten major trade associations whose thousands of individual member firms export controlled goods and technology from the United States. ICOTT's principal purposes are to advise the U.S. Government of industry concerns about export controls, and to inform ICOTT's member trade associations (and in turn their member firms) about the U.S. Government's export control activities.

Our appearance before the subcommittee marks a departure from ICOTT's past charter of working only with the Executive Branch on export controls. The world has changed over the past twenty-five years in ways that are important to export control policy, and we hope to make a useful contribution

to the necessary reforms.

Globalization of industry has been enabled by diffusion of advanced technology. People move more freely and rapidly across international borders carrying with them their knowledge, their products, and their services. Both technology and money move at the speed of light by bits and bytes of electronic information. Over one trillion dollars is sent electronically around the globe every day through the international banking system. Trade and investment flows have accelerated, taking their most dramatic form through direct investment in plants and equipment. For example, an American semiconductor company may do its engineering and microprocessor production in the U.S., manufacture circuit boards abroad and bring them back into the United States for assembly into personal computers. When semiconductor engineers complete a design change in Silicon Valley, they download the information needed to make the change in the manufacturing process at the foreign circuit board plant. At the same time, redesign and scheduling information is signaled to the computer plant here in the U.S. This is what the industry calls "flexible manufacturing."

Not too many years ago, making those design changes would have taken weeks. Today, it's done instantly. Such speed, efficiency and responsiveness to market requirements is critical to remaining competitive internationally.

The beneficiaries are our customers, our employees and America's economy and jobs.

To survive, American exporters must beat foreign competitors to the global market with high quality products. The pace of technology innovation is breathtaking. In the computer industry, for example, new products were brought to the market every seven years during the seventies. Today, new generations are introduced every six to eighteen months. Seventy percent of American computer products have a shelf life of less than eighteen months.

Comparable changes have occurred in every sector of U.S. industry that has remained internationally competitive.

In the capital goods sectors -- aerospace and transportation equipment, power systems and medical equipment -- U.S. products often enjoy a good-will advantage over European and Japanese competitors in the newly industrialized and industrializing world. But the focus of international competition over the rest of the 90's will be directed increasingly on the rapidly growing infrastructure equipment and services markets of these countries because of their phenomenal growth and because home markets are flat.

Unfortunately for U.S.-based competitors, these are the same nations found among the list of 50-to-60 "sensitive countries" targeted for a whole range of

U.S. unilateral export restrictions and sanctions. Their perceived security needs often create a drive for both conventional and nonconventional weapons acquisition, and their cultures and values may be at variance with those of the United States. Our companies are finding an increasing customer perception of political risk in doing business with U.S. suppliers rather than our European and Japanese competitors, and U.S. leadership in these crucial markets is being displaced for generations to come.

Even in industrial countries, the process of designing out U.S. products to avoid our unilateral reexport control policies has not stopped. Highly visible products for which we have enjoyed a competitive lock were too tempting to those wanting unilaterally to send signals to rogue countries. Now we've seen our lock broken as foreign manufacturers designed around our ability to deny their exports to those markets, and so we face international competition strengthened by our own foreign policy.

This trend must be reversed if we are to avoid long term damage to our country's economic security. Proof that we can no longer afford undisciplined export policies toward these countries is demonstrated by the fact that last year's U.S. exports to the top thirteen "sensitive countries" were more than half as much as we exported to the entire European Community. And significantly, these economies are growing at seven to ten percent per year

while our traditional trading partners struggle to stay even.

Given this changed environment, industry and government must work cooperatively to ensure that our future foreign policies and measures to stop or counter the proliferation of weapons of mass destruction will be relevant not only to the new political and security circumstances in the world but also to its changed economic and technological circumstances. Catch-all controls with no standard of materiality must give way to tailored restrictions limited to "choke-point", controllable technologies.

We compliment the Clinton Administration for the report of the Trade Policy Coordinating Committee. The report's export control initiatives for computers are dramatic and long overdue. When fully implemented they will be a great help to the computer and telecommunications industries, and achievement of the report's recommendations will begin the more fundamental reform that is required. But even the President acknowledged that these changes were only the tip of the iceberg. More fundamental reform is required.

Also, a number of legislative proposals have surfaced in Congress. We compliment Mr. Roth and Mr. Oberstar for their bill, H.R. 3412, which reflects a successful dialogue with the National Association of Manufacturers. That bill adopts many of the key principles we endorse -- multilateral controls

as the central feature, license free zones for countries who cooperate with the United States, conforming nonproliferation controls to the same strict policy standards as developed for national security controls, strengthening the policy standards for foreign policy controls, and timely export licensing through better governmental efficiencies.

We compliment Mr. Manzullo and Ms. Cantwell for their bill, H.R. 3431, the product of their discussions with the Electronic Industries Association, one of ICOTT's members. We also compliment Mr. Wyden on his bill, H.R. 2912, which would decontrol telecommunications equipment. Both of these bills ask the necessary fundamental question -- why should we control products and technology that are inherently uncontrollable?

And in the Senate, Ms. Feinstein would require the Administration to index controls to the pace of technology, when appropriate. Her bill, developed with the American Electronics Association and the Computer and Business Equipment Manufacturers Association -- also members of ICOTT -- adopts the principle that controls must keep pace with commercial and technological reality.

These are useful initiatives. They are based on principles that arise from industry's difficult experiences in complying with export controls throughout

the Cold War.

But before we go too far in reformatting the existing statute, we want to encourage you to continue to revisit the challenge to this subcommittee, the Congress and the Administration: Given the nature of the perceived national security and foreign policy environment facing the United States and other countries, will the new export control system contribute significantly to meeting those challenges, or will the contribution of the new system be overwhelmed by burdens on our nation's economic security?

Mr. Chairman, a few years ago, COCOM carried out the so-called "Core List" exercise. It was an admirable effort, but it failed in one critical respect. Originally, it intended to adopt a "blank page" approach to defining the multilateral control list. That never happened. Consolidation of the control list did happen, but COCOM just fine tuned the existing control list. They never really started with a blank page.

ICOTT urges the subcommittee to avoid the trap of building a new set of controls on the foundation of an export control system that was geared to a different threat, a different world economy and a different set of technological assumptions. A new foundation must be built, and we have observed that such indeed is your intent. Your approach is consistent with Vice President Gore's

reinventing government exercise, and we commend you for it. As we understand it, these are the questions you are asking:

1. What are our policy objectives?
2. What are the potential means to address those objectives?
3. Are export controls on commercial products an appropriate means for achieving those objectives and, if so, what should be the priority of such controls in the context of other available means?
4. Do informed experts in the public and private sectors believe that controls can realistically be expected to be effective?
5. What will be the costs of those controls?

This needs to be a true "blank page" exercise. Every assumption underlying the export control system of the past needs to be challenged and evaluated.

There should be a strong presumption against the use of trade restrictions under the EAA. Controls on goods and technology that are not directly related to weapons and instruments of war (i.e., items traditionally subject to the EAA) should be permitted only if three conditions are met: (1) the controls are likely to accomplish their stated and essential purpose; (2) are less costly than other measure that might achieve the purpose; and (3) are strictly limited in duration in the absence of comprehensive multilateral controls. These standards should apply to trade restrictions imposed for "national security" and "nonproliferation" reasons as well as those imposed for "foreign policy" and

sanctions purposes. In light of the drastic change in military threat that confronts our nation, the nature and pace of modern technology development and the diminishing significance of national borders, the consensus that gave rise to export controls on broad-based industrial activity no longer exists. Unless new, more narrow controls can be constructed in accordance with the above standards, we should not perpetuate the comprehensive system of controls embodied in the Export Administration Act.

Moreover, affected firms should have the right to have the courts -- neutral, detached arbiters -- review whether the Executive Branch has complied with the applicable statutory and regulatory criteria. The burden of proof should be on the government to demonstrate that citizens have not been denied their freedom to sell to legitimate customers without due consideration for the full range of national interests, including economic security.

In the area of information technology, the importance of such items in achieving democratization, human rights and economic self-sufficiency should strengthen the presumption against the imposition of controls. The infeasibility of control also weighs heavily against subjecting information technology to regulation. For example, the availability of high performance computer functionality to anyone who operates his own decontrolled personal computers with software that can be downloaded from Internet suggests strongly that

whatever the desirability of keeping high-performance computing power away from this or that destination, attempts to do so assuredly will fail

The next question is under what circumstances, if any, the United States should impose unilateral controls. Let me begin by indicating that ICOTT views any controls as being unilateral unless they are the subject of comprehensive multilateral controls -- that is, controls imposed on enough of the known vendors of the particular controlled goods or technology to ensure that the controls will be effective. Thus we would view controls on high performance computers as being unilateral if they were limited to the United States and Japan because (1) other countries manufacture high performance computers and (2) perhaps more important, as mentioned earlier, anyone can create the functional equivalent of a high performance computer today using decontrolled personal computers and software that is publicly available on Internet (and hence decontrolled even to embargoed destinations).

With that understanding, ICOTT believes that unilateral controls do not advance U.S. interests, and hence, except in the rarest of circumstances, we oppose their application. We concur with the suggestion of the Subcommittee on Export Administration of the President's Export Council that any authority to impose unilateral controls and sanctions should be vested in the President and should not be delegated. We are skeptical of the U.S. Government's

typical approach of imposing unilateral U.S. controls as a supposed predicate to negotiations seeking multilateral controls. From a political standpoint, controls are easier to impose than to lift since lifting may send the "signal" that we are now completely satisfied with the behavior of the targeted country.

We view the organizational issue as having two facets -- policy and procedure. On the policy side, while we recognize that such agencies as the State, Defense and Energy Departments should continue to play an important role in policy making, we oppose increasing the already excessive number of agencies involved and hence do not favor the measure reported by the Senate Foreign Relations Committee (S. 1182) on September 14. That bill would require the referral to the Arms Control and Disarmament Agency (ACDA), the NRC, and the Defense, Energy and State Departments of all license applications for items controlled for nuclear nonproliferation reasons. Procedurally, we favor having a single control list and a single agency handling the entry and processing of licenses within established policy guidelines.

One possible way to assist this subcommittee further would be a forum, led by the subcommittee, where the issues discussed above are debated fully and openly between private and public sector representatives. If this needed to occur in classified session, industry representatives with appropriate security clearances would be made available.

For instance, advocates for controlling civil exports in order to restrict the proliferation of chemical and biological weapons and delivery systems might be asked to respond directly to experts who claim that the hurdles can be surmounted easily by proliferants regardless of export controls. The Office of Technology Assessment has addressed this question in some depth, and industry experts are intimately familiar with the requirements and availability of goods and technology for such purposes.

During the TPCC efforts, and for the first time in memory, senior representatives of the computer and telecommunications industries had a good dialogue with senior Administration officials. When the exercise was completed, substantial agreement was reached.

Suppose you were to host a debate on the role of computers and nuclear proliferation. Important fundamental assumptions would have to be faced. For example, in its recent report, OTA concluded that access to computers is not critical to the ability of a country to develop a nuclear bomb. This finding is supported by Dr. Jack Woriton of Los Alamos National Laboratory who came to the same conclusion in 1990.

The OTA suggested, as did the National Academies representatives in your June 23 hearing, that "demark side" methods of dealing with proliferation

should be considered as preferable to export controls in most cases. The OTA report showed that development of chemical and biological weapons can be developed from widely available goods and know-how, and all weapons of mass destruction can be delivered effectively with conventional military equipment that also is obtained easily if not already possessed. These experts suggest that "demand side" mechanisms to convince proliferants that their national interests are served better by cooperating are the only truly effective proliferation control measures in the long run.

Mr. Chairman, the world has changed. The Cold War is over. The threats to international security are no longer subject to control by the same type of export controls. And the shape of the international economy and global competition is changing. Technology is improving, often faster than the ability of government institutions to keep pace. We believe that recognition of such change justifies reexamination of fundamentals and reinvention of the policies and authorities for using export controls to address our country's national security and foreign policy interest.

Finally, we are confident that successful completion of the reform effort on which you appear to have embarked can produce legislation that will force a radical reduction in the use of trade restrictions that do not serve the full range of national interests.

ICOTT Members

Aerospace Industries Association (AIA)
American Association of Exporters and Importers (AAEI)
American Electronics Association (AEA)
Computer and Business Equipment Manufacturers Association (CBEMA)
Computer and Communications Industry Association (CCLA)
Electronic Industries Association (EIA)
Information Technology Association of America (ITAA)
Semiconductor Equipment and Materials International (SEMI)
Semiconductor Industry Association (SIA)
Telecommunications Industry Association (TLA)

TESTIMONY OF JESS N. HORDES

ANTI-DEFAMATION LEAGUE

FOREIGN AFFAIRS SUBCOMMITTEE ON ECONOMIC POLICY,
TRADE AND ENVIRONMENT

NOVEMBER 18, 1993

I am Jess Hordes, Director of the Anti-Defamation League's Washington Office and I am pleased to be testifying on behalf of ADL and the Committee on Freedom of Trade with Israel, which represents the major Jewish organizations that monitor the Arab economic boycott of Israel.

I want to thank Congress for its work in seeking to end the Arab boycott and its efforts to strengthen U.S. legislation. In particular, I appreciate the opportunity to offer our assessment of the status of the boycott and ways to enhance the effectiveness of U.S. anti-boycott efforts.

In 1945, preceding Israel's existence, the Arab League voted to impose a boycott against the Jewish community in Palestine and prevent Israel's establishment. By 1948, when military efforts to destroy Israel were unsuccessful, the Arab boycott of Israel became an extension of war by other means. Through it, the Arab League sought to undermine Israel's existence as a sovereign state and isolate Israel in the political, economic, and cultural spheres.

In the initial stage, a primary boycott, in which only Arab countries and companies were prohibited from dealing with Israel, was in effect. In the early 1950's, the economic boycott was extended to its secondary and tertiary form, targeting American and other foreign companies doing business with Israel. These companies were put on the Arab

League's infamous "blacklist" of boycotted firms, thereby, closing off Arab markets to them. The boycott and blacklist are administered in Damascus by the Arab League Central Boycott Office (CBO), which gathers information furnished, in part, by companies seeking business in the Arab world.

Recently the Federation of Israeli Chambers of Commerce estimated that the boycott has cost Israel \$45 billion in lost trade and investment over the last 40 years. There is no doubt that, after over 40 years, the boycott still has a "chilling effect" on international business decisions. It has been estimated that upwards of 1,000 American companies have been on the blacklist and countless others, who are intimidated by possible Arab economic retribution, simply distance themselves from business ties with Israel.

The U.S. has taken the lead in countering the boycott. In 1976 and 1977, Congress passed legislation prohibiting and penalizing compliance with the secondary boycott and requiring disclosure of boycott-related requests. In the 1980's, the U.S. stepped up efforts to get our trading partners in Europe and Asia to adopt an anti-boycott stance as well.

U.S. and allied military assistance against Iraq in the Persian Gulf War only underscored the outrageousness of a secondary boycott aimed at American and foreign companies by the very Arab states that benefited from U.S. protection. Although assurances of boycott policy change were received from Kuwait and Saudi Arabia, there has yet to be a clear break from their past discriminatory policy. Countries seeking a close

strategic relationship with the U.S. cannot close their markets to U.S. business.

In the context of the peace process, the boycott, even in its primary dimension, is an anachronism. It prevents the economic normalization that all the peoples of the Middle East desperately seek, complicates implementation of Israeli-Palestinian peace, and runs counter to the spirit of economic cooperation that is beginning to take hold in the region. At a time when donor countries are strategizing about how to build peace from the ground up, removing the boycott would allow the region to move from its confrontational past to a future of reaping the dividends of peace. Arab claims that the boycott should be retained until Israel withdraws from all occupied territories contradict the fact that the boycott was established in response to Israel's very existence.

Whatever linkage the Arab states might assert between continuation of the primary boycott and the peace process is unjustifiable in connection with the secondary boycott aimed at American and other foreign companies. The secondary boycott violates the most basic principles of free trade and constitutes illicit coercion of American commercial decision-making.

At present, only Egypt has formally dropped the boycott, as a result of its 1979 peace treaty with Israel. A few North African Arab League members implement only the primary boycott. Recently, Saudi Arabia and some Gulf states indicated a tacit willingness not to enforce the secondary boycott. But these and other small positive signs are

tempered by oscillation in practice and the failure of Arab leaders to come out publicly in support of a relaxation of the boycott. At best, these countries are divided on the issue. Enforcement mechanisms remain in place and boycott requests continue.

In the cases of Kuwait and Saudi Arabia, U.S. anti-boycott statistics do not bear out their assurances to U.S. officials that the secondary boycott is no longer enforced. The number of boycott requests originating from Saudi Arabia actually increased over the last year. In fact, 314 prohibited requests were received from Saudi Arabia in the last quarter of Fiscal Year 1993 -- higher than in any of the previous six quarters.

Several months ago, in response to U.S. pressure, the Kuwaiti foreign minister suggested that his country would no longer conduct blacklisting. However, just a few weeks later, both Kuwait and Saudi Arabia reportedly participated in the April, 1993 Arab League boycott meeting where several Western companies, including U.S.-based Rubbermaid and General Dynamics, were added. Only after strong American pressure was applied was the October Arab League boycott meeting, intended to blacklist more companies, postponed. Arab League officials oppose any rush to end the boycott, calling it one of the key Arab bargaining cards and PLO officials have talked about conditioning termination of the boycott to Israeli concessions on final status issues in the peace process.

The secondary boycott will not effectively end without unequivocal public

statements and action by Arab governments. Hints of its de-facto dismantlement are not adequate, since the secondary boycott operates through the intimidation of companies who shy away from business relationships with Israel to avoid Arab economic retaliation.

A perfect example is the recent report of compliance by one of Britain's leading firms, Imperial Chemical Industries (ICI). An internal memo from the company's legal affairs department warned that, despite the Middle East peace process, the company should assume that Arab boycott officials would be "as vigilant as ever." Thus, without explicit Arab public action to the contrary, the widely held perception that the boycott is still in place continues to impact business decisions.

From the start, the Clinton administration has given high priority to urging Arab leaders to abandon the boycott. With the signing of the Israel-Palestinian Declaration of Principles, and progress in the peace process, the boycott becomes not only a growing anachronism but a growing irritant to future advances. This relic of animosity and non-recognition has no place in the new architecture of peace. The President and the Congress must continue to demand from the Arab world and the PLO a clear end to the boycott.

Recommendations

- 1) We welcome the recent announcement by U.S. Trade Representative Mickey Kantor that the International Trade Commission will investigate and quantify the direct and indirect damage to U.S. business resulting from the boycott, raising the specter of possible

trade sanctions. This should be a useful tool in effectively pressing U.S. interests.

2) The administration should fully utilize multilateral mechanisms such as the GATT, OECD, and the G-7 to rally our trading partners to combat the boycott and to pressure Arab countries to end it. At the Group of Seven meeting in Tokyo last July, the administration successfully negotiated a clear statement on ending the boycott. Saudi Arabia's application for GATT membership provides a new opportunity for action and I commend Chairman Gejdenson for his initiative on this front.

3) We should expand our efforts to ensure that foreign companies complying with the boycott are not awarded U.S. government contracts. There is already legislation prohibiting foreign companies complying with the secondary boycott from being awarded contracts by the State and Defense Departments. We believe that all U.S. government agencies and departments - not just State and Defense - should, as a condition for awarding contracts, require foreign companies to certify non-compliance with the boycott, perhaps through the General Services Administration as proposed in the past by Congressman Gejdenson and then Senator Wirth.

Moreover, Congress needs to determine the effectiveness and monitor the implementation of the current legislation. We are concerned that no system is in place to investigate the accuracy of contractors' certification. Specifically, the Departments should conduct random checks into the accuracy of certifications, rather than rely solely on the

word of the certifying foreign contractor. The Departments should also provide periodic reports to Congress on their findings along the lines of the amendment to this year's State Department Authorization bill authored by Congressmen Gejdenson and Berman. Congress could further assert its seriousness on this issue by requesting reports from the Pentagon and State Department of contracts denied foreign firms due to lack of certification.

Office of Anti-Boycott Compliance (OAC)

As long as the boycott remains in force, vigorous U.S. anti-boycott enforcement through the Office of Antiboycott Compliance (OAC) must continue. After coming under criticism in 1989, for a decline in enforcement actions, OAC reforms have generated an increase in enforcement activity. OAC is now operating at close to the authorized staff levels. In FY93, OAC completed a total of 80 enforcement actions entering into consent agreements in 37 cases, up from 30 in FY92.

Recommendations

- 1) OAC should continue its program of staff training to improve and upgrade legal and investigatory techniques.
- 2) We commend the increase in maximum penalty levels from \$10,000 to \$50,000 proposed by the House and supported by Secretary Brown and former Secretary Mosbacher. This will be the first monetary increase in 15 years.

- 3) We also believe that increased denials of export privileges in severe cases will strengthen enforcement and are pleased that, in FY93, three consent agreements provided for the denial of export privileges.
- 4) We urge greater coordination among government departments in combatting the boycott, including implementing the 1991 recommendation of the Commerce Department's Inspector General to increase Justice-Commerce cooperation in the area of criminal violations.
- 5) OAC could also work closely with State and Defense Departments to help implement anti-boycott regulations ensuring that government contracts are not awarded to companies known to comply with the boycott.
- 6) As proposed by Congressman Schumer, we believe anti-boycott enforcement would be strengthened if the Export Administration Act (EAA) explicitly recognized a private right of action that would give boycott victims a means to recover damages suffered as a result of this discrimination.
- 7) Another area of concern is the apparent shift in U.S. trading patterns with the Middle East from American-based companies to their foreign subsidiaries, which can more easily comply with the boycott. While legitimate business reasons could explain this trend, boycott-related factors could be at play. In FY93, the foreign subsidiary share of boycott-

related U.S. commerce transactions rose from 31% to 39% -- more than double the 15% share in 1987. The Export Administration Regulations require periodic surveys of U.S. firms to determine the extent of their foreign subsidiaries' boycott-related transactions outside of U.S. commerce. In the fifteen years since the regulations were published, no survey has been conducted. Such a survey is warranted, long overdue and may help provide insights into shifting trading patterns of American companies.

In sum, although there have been some signs that the boycott is weakening, no clear picture of progress has emerged. What remains clear is that continued pressure in all areas is the best defense against the continued blacklisting of and discrimination against U.S. companies.

Now more than ever, the U.S. must continue to strengthen its anti-boycott efforts. The facts still demonstrate that if we cease to be vigilant and allow ourselves to be placated by vague and equivocating statements, the structure of the boycott and its negative effects on the U.S. and Israel will continue.

Testimony of David Danjczek**On Behalf of the Electronic Industries Association****Before the Subcommittee on International Economic Policy, Trade
and the Environment**

Thank you Mr. Chairman. We are pleased to respond to the Committee's request for comments on the Export Administration Act. I am Staff Vice president of Litton Industries, a \$5.5 billion company which is committed to international business. Today I am appearing before you on behalf of the Electronic Industries Association where I chair its International Business Council. EIA is the national trade organization representing the U.S. electronics manufacturers.

On behalf of this \$300 billion U.S. high technology industry, I welcome the opportunity to appear before your committee and am pleased to discuss with you the rewrite of the Export Administration Act (EAA). I would especially like to compliment you on your leadership on this important issue.

It is essential that our policy makers understand that our survival as a nation depends upon our economic well-being. Without a healthy economy, our nation cannot prosper in the world environment, and will not be seen as a leader. National security rightfully continues to play a critical role in our national well-being, but it is only one part. Indeed, today's definition of national security includes economic security as a critical component.

Over the next few months this subcommittee will be considering fundamental changes to the existing Export Administration Act. We applaud this effort and would like to provide to you suggestions for the revision. Overall, we see four basic principles as essential for a new act.

- ◆ First of all, the act must provide a means to account for the rapid pace of technological change.
- ◆ Secondly, the export license process must be made more transparent and efficient.
- ◆ Third, our control system should focus only on those "choke point" technologies that are essential for the development of weapons of mass destruction and target countries that are developing these technologies.
- ◆ Finally, our policy makers should insist on multilateral controls and resist the use of unilateral controls. Past experience has shown that they only punish our domestic industries, and rarely have an intended effect on the parties that they are supposed to punish.

One of the most challenging problems that you and your subcommittee will face in the development of this new EAA will be the question of how to address the rapidly changing nature of today's high technology products. In times past, a new technology could

capture a market for years before it was surpassed by newer and more sophisticated products. Today product life cycles are infinitely shorter. In many cases, the lag time between generations of technology can be as short as six months. Our export control system must be able to address these changes in a manner that allows our companies to market competitive products. In order to do this, the U.S. Commerce Control List should focus only on technologies that are specifically designed to aid in the development of weapons of mass destruction. Current controls focus on many civilian technologies in the computer, telecommunication and semiconductor sectors. The current controls unnecessarily hamper our high technology industries. We must remove these controls before they irreparably damage our industrial base.

As a means to achieving that goal, we strongly endorse the "Computer and Communications Trade Freedom Act," H.R. 3431 that Congressman Manzullo and Congresswoman Cantwell introduced recently. This bill advocates a fundamental new approach toward the export control system. It would address the rapid pace of technological change by ensuring that our control regime is targeted only on technologies and countries which are of proliferation concern.

Another important component of a new Export Administration Act must be transparency and efficiency in the licensing process. In particular, we believe that strict time guidelines on the license review process should be established to which all agencies would adhere. Instead of specifying review periods for the individual reviewing agencies, we believe that establishing an overall time deadline would be more effective. Such a

mechanism would require reviewing agencies to consider applications in a timely manner, not to exceed 30 days.

As I have already mentioned, our current regime does not really distinguish between "choke point" technologies and civilian technology for reasons of control. In most cases, purely civilian technologies are controlled because they have the theoretical potential to be indirectly involved in an illicit purpose. We believe that the dual-use control list should only contain those commodities that are truly "choke point," i.e., are directly related to the development, production and use in weapons of mass destruction. Multilaterally controlling only those technologies would help focus our government's efforts on the proliferation of dangerous weapons-related technology.

Additionally, our export control system should identify "target countries" that are engaged in proliferation activities. Again, the fundamental changes called for in the Manzullo/Cantwell legislation would address this problem, for certain industries, by focusing controls only on countries and technologies that are truly of proliferation concern.

Of paramount importance for you and your committee to consider during deliberations over the next few months are the imposition of unilateral export controls. These types of controls are probably the most detrimental to our industry because they punish U.S. high technology manufacturers while allowing foreign firms to conduct business as usual.

If unilateral controls are to be used at all, we would propose that you consider a finite period of their use, while our government is negotiating with foreign governments on their strict multilateral implementation. The U.S. government should establish criteria for initiation of foreign policy controls. If multilateral agreement cannot be reached, then the unilateral controls should be removed, after a defined period, and U.S. producers allowed to export without restriction. We believe that the clarifying of controls would encourage companies to export further.

We are truly at a crossroads in our nation's development. Our long conflict with the East bloc is over. It is now time to address the different problems facing our nation. Economic competition, technology evolution and proliferation are these new challenges. Our export control system must adjust to meet them. I believe that your efforts on rewriting the current EAA are essential, and I offer EIA's assistance as well as my own.

STATEMENT
OF THE
EMERGENCY COMMITTEE
FOR AMERICAN TRADE

TO: COMMITTEE ON FOREIGN AFFAIRS
SUBCOMMITTEE ON ECONOMIC POLICY
TRADE AND ENVIRONMENT

ON: THE EXPORT ADMINISTRATION ACT

BY: RICHARD LEHMANN
DIRECTOR, PUBLIC AFFAIRS
IBM CORPORATION

ON: NOVEMBER 18, 1993

ECAT

is

an organization of the heads of 65 large U.S. international business enterprises.
Their annual worldwide sales total about \$1 trillion
and they employ over 5 million persons.

ABOUT ECAT

In October 1967, a number of United States business leaders joined together because of a shared concern that a new worldwide trade war was in the making. Proposals to severely restrict imports into the United States were moving through the Congress. Threats of retaliation by foreign nations were being openly voiced.

These businessmen felt that a combination of restrictions and retaliations could destroy two decades of progress in the expansion of trade and investment and would damage other areas of international cooperation. To help prevent this, they formed the Emergency Committee for American Trade.

The bills then in Congress did not succeed but the threat to trade and investment continued and the founders of what came to be known as ECAT were joined by others until the Committee reached its present size.

ECAT's members account for major segments of the manufacturing, banking, processing, merchandising and publishing sectors of the American economy. Their combined exports run into the tens of billions of dollars. The jobs they provide for American men and women - including the jobs accounted for by suppliers, dealers and subcontractors - are located in every state of the nation and cover skills of all levels. Their worldwide sales in 1990 totaled over \$1 trillion and they had over 5 million employees.

The members of ECAT are practical businessmen. They are not free trade theorists. They believe in and support measures designed to expand international trade and investment.

The members of ECAT are adherents of the principles of the free enterprise market economy. They believe that international trade expansion means increased sales and profits and lower unit costs, that it means job opportunities for all American workers, that it fights inflation and that it is an essential spur to the technological advancement upon which America's economic progress so heavily depends.

They further believe that private foreign investment benefits the American economy and that the trade and investment activities of multinational companies are vital contributions to the well-being of the United States and other nations.

ECAT members are active supporters of legislative and other measures that facilitate U.S. exports, including support for adequate export financing facilities. They are opposed to various disincentives to exports, including questionable uses of export controls for public policy purposes. They additionally are opposed to changes in U.S. taxation of foreign-source income that unfairly penalize their competitiveness in world markets.

The members of ECAT realize that the peaceful expansion of world trade and investment is threatened from many sources. They have called for international agreements to deal with unfair trade practices, including both bilateral and multilateral agreements to protect intellectual property rights. They have encouraged businessmen overseas to support policies that assure fairer treatment of American goods in foreign markets and to oppose restrictions on American-owned companies.

The work of ECAT depends primarily on the actions of its members. The Committee provides a means of expressing commonly-held views on measures that will help or harm American trade and investment, but the members themselves present their opinions to government officials and to the public.

Members of ECAT, supported by experts from within their companies and from the small ECAT staff, have made their views known through testimony before Congressional committees, through contacts with Administration officials, through consultations with government leaders, through liaison with other organizations and through public information programs.

STATEMENT OF RICHARD LEHMANN, DIRECTOR, PUBLIC AFFAIRS, IBM CORPORATION, ON BEHALF OF THE EMERGENCY COMMITTEE FOR AMERICAN TRADE, BEFORE THE COMMITTEE ON FOREIGN AFFAIRS SUBCOMMITTEE ON ECONOMIC POLICY, TRADE & ENVIRONMENT
HEARING ON THE EXPORT ADMINISTRATION ACT

NOVEMBER 18, 1993

Mr. Chairman, I am Richard Lehmann, IBM Director of Public Affairs, and appearing today on behalf of the Emergency Committee for American Trade, or ECAT. ECAT is an organization of the chief executive officers of sixty American corporations who are among our country's leading export performers, who have annual worldwide sales of over one trillion dollars and nearly five million employees.

You may recall that two years ago, I also appeared for ECAT, testifying in support of S. 320, a bill which this subcommittee played the leading role in getting passed by Congress. While that bill unfortunately was vetoed, it did adopt several necessary export control reforms that are today still relevant. Among these reforms were provisions:

- Treating those countries who cooperate with the United States on export controls as a true license free zone;
- Indexing controls to the pace of technology;
- Providing for Judicial review;
- Clarifying distinctions between the respective jurisdictions of the Commerce and State Departments; and,
- Improving efficiencies in export administration.

Today, we meet in a different time, with different challenges to the United States and different global, economic, and technological dynamics. We have a different Administration, one that has clearly recognized the importance of reinventing government. This was most ably demonstrated when the President announced the report of the Trade Promotion Coordinating Committee on September 29th in which he proposed dramatic changes in computer and telecommunications treatment. More in-depth review is still needed in these areas, but this was a major step in the right direction.

ECAT has engaged in an extensive review of its export control positions since our last appearance before this subcommittee, endeavoring to take into account the changing dynamics of the world's political situation, the globalization of industry, and the speed of technology development

and its dissemination. We have developed the outline of a model bill, along with explanations for each of our recommendations. I request that the outline be included in the hearing record.

This subcommittee has already heard extensively from the National Association of Manufacturers. ECAT's recommendations are complementary to NAM's. ECAT has chosen, in particular, to focus on selected policy issues in three principal areas:

1. The need for a clear statement from the government about the nature of the global national security and foreign policy challenges to the United States that would establish the purpose of export controls;
2. The need for better clarification of the control authorities granted by the new Export Administration Act and other statutes; and,
3. The need for a more *anticipatory* approach to control list construction.

PURPOSE OF CONTROLS

We begin where we hope Congress and the Administration will begin. If the government is to grant export control authority to the Administration, then it should clarify the purpose of those controls in the post-Cold War era. Industry may not have always agreed with the way Cold War controls were implemented, but it never debated the rationale for the controls themselves.

Two Administrations have indicated that curbing the proliferation of weapons of mass destruction should be at the top of our national security and foreign policy agenda. ECAT supports this general policy. However, the specific targets of the non-proliferation policy have not been articulated with the kind of precision that is needed in order to win public understanding.

Therefore, ECAT suggests that you consider a sense of the Congress resolution asking the President to state just what are the aims of American export control policy. Such a statement would do much to improve public understanding and compliance with our non-proliferation goals, and should be a pre-condition for implementation of any new controls.

CLARIFICATION OF CONTROL AUTHORITY

That done, we believe it important to examine the underlying authority of various forms of export controls. Like NAM, we support elimination of the distinction between foreign policy and national security controls.

I would like to address a different issue regarding the underlying authority. Current law and regulation cloud the distinction as to whether products are to be controlled under the authority of the Export Administration Act or the Munitions Act. We ask Congress to state clearly that "commercial" products will be subject only to the new Export Administration Act.

We propose a specific definition of "commercial" products and that the new Act alone address the authority to control these products. We suggest that if 75 percent or more of the consumers and users of a given product were found to be outside of the military, then by definition, that product should be controlled as a commercial product.

This approach would, for example, address the thorny issue of encryption controls. Current export control treatment of encryption creates an enormous inequity. Business around the world wants to protect its trade secrets. Industrial espionage is on the rise. It's not enough any longer just to lock one's door or desk and to hire security guards against potential theft. Now that business trade secrets are maintained and transmitted electronically through the use of computers and telecommunications networks, those secrets are increasingly susceptible not only to trivial hackers, but also to serious efforts to break into files and communications lines.

Two of the most popular encryption systems -- the DES and RSA algorithms -- are widely used in the international banking system, by American corporations, and even by private individuals in the United States and abroad. In fact, more than 99 percent of all DES and RSA usage worldwide is employed by the private sector. Yet, these two algorithms are controlled as munitions items. It doesn't make sense.

ANTICIPATORY LIST CONSTRUCTION

In the past, ECAT has been among the strongest advocates of two indexing provisions from S. 320 -- the general and supercomputer indexing provisions. While we still support those as interim steps for getting indexing introduced into the regulatory process, they suffer from one major flaw.

Technology, particularly in the computer and semiconductor industries, is advancing so fast and is being disseminated abroad so quickly that American regulatory instruments cannot keep pace. Even if the indexing provisions of S. 320 were implemented, they would still be geared to products and technologies that are already in the marketplace. It will take time, under the S. 320 provisions, to analyze industry data and then implement regulatory changes, especially if multilateral agreement is required -- too much time.

Similarly, we need to find a better way to anticipate foreign availability. Foreign availability as written into current law is unsatisfactory, because it creates a protective umbrella for America's foreign competitors.

Here's an example of how it works today. All semiconductors are exported under general license authority, except to COCOM-proscribed countries. That means U.S. semiconductor firms sell their latest devices not only to American computer companies, but also to Taiwanese, Korean, and Brazilian ones, and those companies then integrate these devices into their computer products.

But look at what happens to computers using these chips. The foreign computers are not controlled; American computer exports are.

Why doesn't current foreign availability law adequately address the problem? To prove availability today, you have to show that a product is available in comparable quality in sufficient quantity to render U.S. controls ineffective. In other words, you cannot prove foreign availability until you have already lost significant market share to your foreign competition.

That approach undermines U.S. competitiveness. ECAT's proposal would correct this. The proposal anticipates both how fast technology will be developed and how fast it will be disseminated. Under our proposal, when the Administration finds that foreign availability is likely to exist over the next 18 months, it then requires two actions -- First, that the United States immediately decontrol to that level of technology for GFW purposes, and second, that the U.S. Government should propose decontrol at that level immediately to COCOM or its successor regime.

Happily, we can point to a specific case where this approach has already been shown to work. Our proposal basically mirrors the same process that led to the export recommendations of the TPCC report. In that process, the Administration first acknowledged that major new technologies were about to be introduced by the semiconductor and computer industries. Then, they surveyed industry groups and individual companies in each industry regarding their product availability plans, their anticipated worldwide manufacturing and sales volumes, and how significant those plans were to the American economy. After surveying the industry, they ran their own internal analysis to confirm the information they had received. When they had done so, they not only agreed with the recommendations that had been submitted by industry, but in the case of decontrol, they proposed an even higher level than industry had suggested.

The ECAT proposal for the Export Administration Act reform endorses this approach and would codify it.

CONCLUSION

Mr. Chairman, we are witnesses to dramatic political change, economic change, and technological change. Change like this requires innovation in our public policy processes. We in ECAT have tried to be as innovative as possible, while being responsible in the context of the world's political realities. We hope the members of the subcommittee will find our recommendations useful, and we will be happy to work with you on putting them into effect.

Statement of

O. Bradford Butler

Chairman of the Board

NORTHERN TELECOM

to the

Subcommittee on Economic Policy, Trade and Environment

Committee on Foreign Affairs

U.S. House of Representatives

Washington, D.C.

December 6, 1993

Statement of
O. Bradford Butler
Chairman of the Board
NORTHERN TELECOM

I am pleased to respond on behalf of Northern Telecom to the request from Chairman Sam Gejdenson to offer testimony concerning the impact current export control restrictions have on high tech companies such as Northern Telecom and the need to reform U.S. export control policy and procedures in order to make U.S. companies more competitive worldwide.

First, I would like to offer our appreciation for the leadership Chairman Gejdenson, Ranking Minority Member, Toby Roth and other Members of the Subcommittee have taken in pushing for changes in U.S. export laws which will help spur U.S. competitiveness in the fast growing markets of Europe, the Asia/Pacific region and Latin America. If the U.S. is to maintain its technological leadership, U.S. companies must be able to compete in international markets where there is a great need to build, modernize and expand telecommunications network infrastructures which can provide the services and opportunities needed for these countries to grow.

Northern Telecom is a major international telecommunications equipment manufacturer. The U.S. company, Northern Telecom Inc. (NTI), is a major U.S. exporter and is the second largest telecommunications equipment manufacturer in this country. NTI is based in Nashville, Tennessee. In addition to our Tennessee presence, NTI has major manufacturing plants, R&D facilities and

operational offices in North Carolina, Georgia, Texas, California, New York, Colorado, Minnesota, Virginia and Florida, as well as sales and services offices across the country. All in all, NTI employs 22,000 people in the United States. Worldwide, Northern Telecom operates 50 manufacturing facilities, in addition to research and development laboratories, and provides products and services to the public telecommunications industry, businesses, universities, governments and other institutions in more than 90 countries in North and South America, the Caribbean, Europe, the Middle East, Asia and the Pacific Rim. NT has sold more than 75 million ports of fully digital systems--more than any other company in the world--and is a leading supplier of digital switching systems to the U.S. telephone industry, digital communications systems to the U.S. military and a major U.S. exporter of telecommunications equipment. Northern Telecom was the first non-Japanese supplier of telecommunications equipment to Japan and in recognition of its export sales, Northern Telecom has received the Presidential "E" Award from the Department of Commerce.

Most recent changes in export control policy occurred on September 29, 1993, when Commerce Secretary Ron Brown released a new national export strategy, entitled *Toward a National Export Strategy*, under the aegis of the 19-agency Trade Promotion Coordinating Committee (TPCC), which he chairs. Included in that strategy are proposals to liberalize export controls on U.S. high technology exports. NT, along with other companies, made substantial input to the task force preparing the report at the request of the Commerce Department. NT congratulates the Administration on the export control reforms detailed in the TPCC report and looks forward to rapid implementation of the recommendations. NT applauds the sweeping steps taken by the Administration

in liberalizing computer equipment exports and believes the same approach is necessary for telecommunications equipment.

With respect to telecommunications equipment, the report recommends only minor changes. The report recommends proposing to COCOM the removal of licensing requirements for telecommunications exports (except information security) for use in public switched networks to most countries not proscribed by COCOM. The report states that the proposal to COCOM include changing the control regime on telecommunications technologies for civilian end-users by reducing control levels for fiber optics, radio relay, cellular communications systems and "more advanced switching techniques related to these types of communications." In an increasingly converging industry, a new era of communications technologies are marrying computer and telecommunications products. Therefore, changes and adaptations in export controls must go hand in hand. It is imperative that liberalization in computer controls are not impeded by telecommunications controls that have not been addressed.

Northern Telecom is deeply concerned that current export control restrictions perpetuate a system based on outdated Cold War politics. In this submission, we argue that telecommunications controls are based on outmoded regulations that were established for a post-World War II environment that now need to be reexamined and adapted to assist U.S. companies facing today's and tomorrow's competitive challenges. The reauthorization of the Export Administration Act and recently introduced export control legislation, as well as the creation of a post-COCOM regime, offers the U.S. a unique opportunity to give U.S. high technology firms equal competitive footing with their foreign competitors. Northern Telecom urges the U.S. Government to remove complex technology-

based controls and decontrol telecommunications equipment for civilian purposes. Additionally, U.S. unilateral controls should be eliminated and the export licensing process streamlined to one in which companies are notified of denial or approval within thirty days of their applications. These initiatives are contained in legislative proposals introduced by Representatives Manzullo and Cantwell, as well as Representatives Wyden and Roth which promote the concept that a streamlined export control system should be based solely on end-users that receive the product. NT is supportive of these legislative proposals that will go into formulating a new policy aimed at being proactive and thrusting the U.S. telecommunications industry into the 21st century. U.S. export control policy should be revamped to reflect multilateral consensus and strictly focus on products and/or entities that contribute to the production and development of weapons of mass destruction.

Decontrol for Civilian End-Use

The TPCC report mentions working with COCOM allies to change the control regime on telecommunications technologies for *civilian end-uses*. This is clearly the direction in which the Administration should be headed. The "change in the control regime" should be towards a policy of decontrol. Any legislative proposal should include provisions that change the focus from being technology-based, as they have been for the last forty years, to one that is based on the end-user. Liberalization is not enough--total decontrol of civilian telecommunications technologies is the only appropriate measure to take at this juncture.

As economic realities replace political pressures, obsolete control policies must give way to new ones. Technology changes so rapidly that regulations

sometimes become outdated before they are implemented. As part of their infrastructure development, many countries are expanding their telecommunications networks and providing U.S. companies with marketing opportunities. The U.S. Government needs to ensure that U.S. companies are not hamstrung by outmoded regulations. U.S. companies may be frozen out of markets of major developing countries in the very near future if these countries believe they cannot depend upon the ongoing transfer of appropriate leading edge technology from the United States that is necessary to create a modern, competitive telecommunications infrastructure.

One of the best examples is China. I recently returned from a visit there with NT's Executive Vice President, James R. Long, and met with President Jiang, Vice Premier Zou, and other high level Chinese officials. The primary concern voiced by the Chinese leaders was that export control liberalization by the U.S. and COCOM is necessary for future development of the Chinese telecommunications infrastructure and to benefit U.S. trade activities in China. The Chinese want guarantees that we will deliver not only today's technology, but that of tomorrow.

China will be one of the largest economic players in the next decade and telecommunications will be one of the most important sectors. Because of its sheer size alone, China will have the greatest impact on the world economy for the next ten to twenty years. China plans to develop and modernize its telecommunications infrastructure in order to build a base to attract foreign, global companies. Currently, China is producing 5-6 million telecommunications lines per year and the Chinese want to expand to 15 million lines per year by the end of the decade. In order to achieve this goal, the Chinese need to have

assurances from the U.S. that U.S. companies serving the Chinese market will be able to transfer leading edge technology. China has a large number of bright scientists and engineers and it will not be long before China develops its own technology. With or without the U.S., the Chinese will get this technology.

Current restrictions on China include controls on basic technologies that are vital to the development of a competitive telecommunications infrastructure such as common channel signaling systems that allow intra-country communications and intelligent network capabilities on which activities such as credit card calling are based. Although a limited form of common channel signaling is licensable to China under current COCOM rules, it is the more advanced form of common channel signaling that is most desired and necessary for a modern infrastructure. However, we believe that full common channel signaling is currently installed in software and activated, most probably having been obtained from non-COCOM countries. Other key features and technologies that the Chinese are looking for are ISDN and high-speed transmission capabilities. Multinational businesses need these applications to survive in a highly competitive business environment.

In June of this year, Northern Telecom signed a Memorandum of Understanding with China's State Planning Commission to negotiate joint manufacturing and sales of telecommunications switching and transmission equipment, advanced integrated chips and training services and joint research and development efforts in China. Part of this plan is a joint venture plan for NT's Digital Multiplex Switch-100 (DMS-100). This is one of Northern Telecom's core products manufactured in Research Triangle Park, North Carolina. The second phase of the switching program is to provide digital technology to rural markets utilizing Northern Telecom's DMS-10 switching product also manufactured in Research

Triangle Park. More than 80% of the Chinese market is rural. The effect by end of the century, if NT's manufacturing plans in China succeed, could be significant increased investment in the U.S. and an additional 3,500 to 4,000 U.S. jobs. Current export control restrictions will limit the implementation of NT's MOU.

U.S. Licensing Procedures

U.S. high technology companies must also contend with delays in the U.S. licensing process. Although improvements have been made, there is still a significant lag in U.S. Government processing time that often results in losing the business of a foreign customer. The licensing system needs to be transparent and open and license reviews should be expedited not to exceed a maximum of 30 days. Guidelines should be developed under Commerce Department leadership and adhered to by all relevant U.S. Government agencies involved in the process. NT understands the concern for U.S. national security potential in prohibiting certain high tech exports from the U.S. National security concerns should be taken into account and addressed by the relevant U.S. departments but overall decisionmaking authority should rest with the Department of Commerce whose primary function is promoting U.S. trade and exports. However, while the U.S. Government can isolate confidential defense technology which is not in the public arena, it is impossible to isolate technology which is in the commercial marketplace. There is no global control possible over this technology.

Currently, the U.S. is negotiating, with its COCOM partners, the scope of the post-COCOM regime that is expected to commence in 1994. These discussions have focused on a system based on "national discretion" export licensing procedures. National discretion would allow the export to proscribed

destinations without first getting COCOM approval. It is important to note, however, that national discretion licensing procedures unduly place U.S. industry at a competitive disadvantage with companies from European and Asian COCOM countries with relatively less complex licensing schemes. Because of our multi-agency review process, U.S. export licenses are encumbered with extraneous conditions and unnecessary delays. National discretion procedures further damage U.S. company competitiveness because frequently unrealistic conditions are placed on export licenses. As the U.S. moves to participate in a multilateral post-COCOM regime, the U.S. Government should adopt a process no more stringent than other major western countries, such as Germany or France.

Unilateral Foreign Policy Controls

The U.S. telecommunications industry is further disadvantaged because the U.S. unilaterally imposes foreign policy controls. Foreign policy controls may be applied in almost any situation in which another country is seen to be conducting its affairs in a manner not to the satisfaction of the U.S. Foreign governments have opposed U.S. foreign policy controls because they incorporate extraterritorial features. As a result of the U.S. trade embargo against Cuba, the governments of Canada and the U.K. have issued blocking orders that prohibit companies organized under their laws from complying with the U.S. embargo. Because foreign policy controls are applied unilaterally by the U.S., the competitiveness of U.S. companies has been adversely affected. Foreign suppliers, not hampered by U.S. embargoes and trade sanctions, enter and dominate the targeted country. This is the case in Vietnam where European and Asian suppliers, not subject to the U.S. embargo, have made significant inroads

and are attempting to shut out U.S. companies from potential business opportunities. Additionally, foreign companies design out U.S. products. In effect, this policy actually forces the punished destination to buy from foreign competitors to the exclusion of U.S. companies.

These unilateral export control policies must not continue. U.S. export control policy must instead be multilaterally coordinated and enforced. If not, they will only continue to discriminate against U.S. industry, harm U.S. economic interests and have no effect whatsoever on the product or technology that is being supplied. Criteria should be established for foreign policy controls whereby the President determines that no viable alternative exists to achieve national security and foreign policy objectives and that a time limit is attached to their use. As stated in Representative Roth's comprehensive export legislation, such emergency controls should not extend beyond 180 days after their imposition unless an agreement is reached with other countries to adopt similar controls. Industry and government can work together to ensure that these all-encompassing controls are replaced by controls on countries and end-users that are appropriate and necessary.

Once again, we praise your efforts on behalf of the telecommunications industry and admire the long-standing commitment your subcommittee has shown to this effort. Northern Telecom will continue to work with the subcommittee to improve the U.S. export control process. We thank you for the opportunity to provide comment for the record on a subject, we believe, will determine the health and future of not only our company but that of the U.S. telecommunications industry as a whole.

**PREPARED STATEMENT OF FRANK A. TAORMINA, VICE PRESIDENT,
ON BEHALF OF HUGHES SPACE AND COMMUNICATIONS COMPANY**

**BEFORE THE ECONOMIC POLICY, TRADE AND ENVIRONMENT SUBCOMMITTEE
OF THE COMMITTEE ON FOREIGN AFFAIRS
UNITED STATES HOUSE OF REPRESENTATIVES**

November 18, 1993

Chairman and Members of the Committee:

Hughes Space and Communications Company is a major division of Hughes Aircraft Company, and is primarily engaged in the manufacture of satellites. We welcome the Subcommittee's invitation to discuss the effect of export controls on the competitiveness of the United States satellite industry.

Hughes Space and Communications Company, headquartered in El Segundo, California, is one of the largest companies in the international satellite market. We have approximately 5,000 employees and a backlog of about \$2 billion in satellite orders. Our business is currently about 50% government and 50% commercial, and we manufacture approximately half of the world's communications satellites. Most of what you see on television "Live via Satellite" is transmitted through a Hughes-manufactured spacecraft.

However, Hughes is not without competition. Loral, Martin Marietta and European manufacturers are aggressively bidding for larger shares of the market. This is a fiercely competitive business, and one that is becoming more so every day. Our foreign competition will grow stronger over the next decade, and will come not only from Western Europe, but also from other nations -- many of whom provide direct economic support to their satellite industries.

In the context of this increasingly competitive international environment, I would like to briefly raise two concerns that I believe are important to address in your bill.

A. The Export Licensing Process

The first area is the urgent need for a more rational and timely export licensing process. As noted in the first report of the Administration's Trade Promotion Coordinating Committee (TPCC), entitled "Toward a National Export Strategy," released September 29, 1993, U.S. businesses feel that:

export controls have not kept pace with either changes in technology or changing political realities and are the single most important impediment to exports, costing [U.S. businesses] billions of dollars each year.

We at Hughes must concur with that assessment. Currently, it takes us about 24 months to build a satellite, and we are constantly working to reduce that time. It has often taken us 5 or 6 months, and sometimes up to 12 months, to obtain a license to export a satellite overseas. This is simply unacceptable.

When we go to Australia, Brazil, or elsewhere to sell a satellite, potential buyers are always concerned about our ability to obtain the required export licenses within a reasonable period. As a result of the unpredictability and delay involved in current U.S. licensing procedures, customers generally require us to stipulate that we will receive a license by a certain time or risk defaulting on the contract. Because of the time it takes to process license applications, typically we will have to commence satellite manufacture before the required license applications have been approved. Until the licenses are issued, we remain at risk for the satellite we have begun to build and for the \$50 million or more investment the buyer has in the satellite. Meanwhile,

the customer remains uncertain whether it will be able to receive the satellite it has ordered.

The license delays that Hughes has experienced are numerous. With regard to the temporary export of U.S.-manufactured satellites to be launched from French Guiana, there have been two recent instances where 60 to 90 days were taken -- for a process that, by now, is entirely routine. More than 20 U.S. commercial communications satellites have been launched from French Guiana, and the policy governing such activities has been fully established. The time required to process such an application should be measured in days, not weeks or months. For a recent license to export the MSAT spacecraft to Canada, it took seven months from submittal to approval. This particular export requires no policy review. Since the 1970's, half a dozen U.S. satellites have been exported to Canada -- establishing a pattern and policy which should take days, not weeks or months, for approval of licenses. Other examples could also be cited.

Our competitors in France and Germany, on the other hand, arrive before a potential buyer with a license in hand. Neither they nor the buyer takes any risk of a denied or delayed license. This puts U.S. companies such as Hughes at a severe competitive disadvantage. Our foreign competitors make their export licensing advantages a significant part of their international marketing pitches.

Because of situations like these, we ask that you do whatever you can to shorten the licensing process and increase its transparency and predictability. The TPCC announced several action items that are relevant, including to:

6. Streamline the export licensing process and liberalize export controls on computers and telecommunications

products, consistent with U.S. national security and foreign policy interests.

56. Harmonize U.S. domestic dual-use controls with multilateral controls to the greatest extent possible, consistent with U.S. national security and foreign policy interests.

57. Reduce by 25 percent the maximum time for reviewing dual-use, individual validated license applications before they must be escalated to the senior inter-agency level.

The "rationalization" process of shifting spacecraft from the stricter Munitions List (administered by the State Department) over to the Commodities Control List (administered by the Commerce Department) during the last three years has resulted in some progress in the right direction. But further rationalization and streamlining is urgently required. We therefore applaud the TPCC's decision to continue the transfer of satellites from the Munitions List to the Commodities Control List, and to do so on an expedited basis.

Furthermore, regardless of which agency has jurisdiction, the entire export licensing process needs less paperwork, more predictability, and more speed. U.S. businesses, and the U.S. economy, need a revised licensing regime that is responsive in adapting to a post-Cold War environment characterized by intense international competition.

B. Unilateral Trade Sanctions

Our second concern is the issue of unilateral U.S. trade sanctions. As you know, the United States has imposed sanctions on the People's Republic of China (PRC) for violations of the Missile Technology Control Regime (MTCR). Hughes fully supports the national security objective of non-proliferation. We do not oppose the imposition of MTCR sanctions on violators. Yet we do believe that sanctions should

be imposed in a clearly defined and effective manner -- one that punishes the violator and prevents proliferation.

When trade sanctions are unilateral, and lack focused objectives, they all too often end up harming U.S. workers and the U.S. economy, not the intended target. In the case of the MTCR sanctions leveled against the PRC, several commercial satellite sales have been placed in limbo by uncertainty over whether they are included in the export ban. The Administration has yet to make a final decision regarding whether exports of communications satellites are banned -- but for the moment, it appears that customers who wish to launch their satellites from the PRC cannot buy our satellites due to these U.S. unilateral sanctions. (Hughes strenuously disagrees with any interpretation that MTCR sanctions, which cover missile equipment and technology, should apply to the export of commercial communications satellites to be launched from the PRC; that legal issue, however, will not be addressed here.)

One result of this uncertainty has been that customers have turned elsewhere and we are in the process of losing a very important market. For example, Hughes had been negotiating for an \$80 million to \$100 million contract to build two communications satellites for the People's Bank of China. However, since the sanctions were imposed, China's National Space Administration has announced plans to award the contract to Germany's Deutsche Aerospace, rather than Hughes. This may not be dismissed as merely "one lost contract." Stable, long-term relationships are essential with our international satellite customers, and one serious incident can jeopardize a decade or more's worth of business. The sale of communications satellites to China is one of the greatest high technology export opportunities available to the U.S. in the 1990's, but cannot be taken for granted.

Our current situation illustrates perfectly why unilateral trade sanctions are bound to fail when equivalent products and technology are available to foreign customers from sources other than the U.S. In effect, nothing has been denied to the Chinese -- they have not been punished. As our Chairman Michael Armstrong commented recently regarding the impact of the MTCR sanctions, "I know it doesn't affect missile technology transfer, but I do know it affects American jobs, American families, American business and the American satellite technology base."

Ironically, even assuming for the sake of argument that there is some risk of missile technology transfer in the course of launching a commercial communications satellite from the PRC, the MTCR sanctions have probably increased that risk. We believe our foreign competitors simply cannot be expected to safeguard their satellite technology in dealing with the PRC to the same extent as is required under well established U.S. government-industry practice. We expect that the Chinese will obtain substantially more satellite technology from Deutsche Aerospace than they would from Hughes.

Last, the U.S. is losing an opportunity to play a major role in liberalizing China. The satellite systems being purchased by China are intended to enhance free communications, including access to Western news and media programming. Without the involvement of U.S. vendors in the Chinese satellite market, the U.S. will not be a part of this process.

C. Conclusion

While we at Hughes have been very successful in the world satellite market, that market is becoming more competitive every day. We believe we can continue to win in that marketplace if it is open and the playing field is reasonably level.

But if Hughes remains hampered by an export control regime that is unpredictable, untimely, and overly cumbersome, these conditions will hamper our ability to compete and we will lose out to our international competitors.

We hope that the new Export Administration Act will address our concerns. Legal and regulatory reform continue to be necessary in order to ensure the competitiveness of U.S. space companies and the health of our space industrial base. We applaud this Subcommittee, Chairman Gejdenson, and Congressman Roth for your leadership in holding this and other hearings, and on your efforts to rewrite the Export Administration Act. We would be pleased to answer any questions or give you more concrete examples of our experiences and difficulties with export licensing and unilateral sanctions.

**TESTIMONY OF THE
CHEMICAL MANUFACTURERS ASSOCIATION
BEFORE THE
SUBCOMMITTEE ON ECONOMIC POLICY, TRADE AND THE ENVIRONMENT
COMMITTEE ON FOREIGN AFFAIRS
UNITED STATES HOUSE OF REPRESENTATIVES**

: **November 29, 1993**

The Chemical Manufacturers Association (CMA) is pleased to submit this testimony on possible revisions in the United States' export control regime. As the nation's largest exporter, the chemical industry calls on the Members of this Subcommittee, and the Congress, to take the lead in harmonizing the U.S. export control system more closely with those of our major trading partners. Harmonizing export control systems will be critical to the success of multilateral agreements such as the Chemical Weapons Convention.

CMA is the non-profit trade association that represents 90 percent of the productive capacity for basic industrial chemicals in the United States. CMA and its member companies are committed to effective export controls that enhance national security and foreign policy objectives. But as currently administered, the U.S. export control system threatens the industry's status as a reliable supplier to the world market.

Exports of chemical products, equipment and technology are a mainstay of the industry's economic performance. In 1992, U.S. chemical manufacturers earned a trade surplus of \$18 billion, on total export shipments of \$44 billion. Our export performance underscores the global character of the industry.

Chemical manufacturing contrasts sharply with other industries where exports are important. In the high tech industrial sectors (such as computers), a relatively small number of companies in a small number of countries dominate world trade. Chemicals are produced in virtually every country, using a range of technologies and equipment, in companies of every size and description. The global structure of the chemical industry has significant implications for the success of one nation's export controls that target specific products, equipment and technology.

CMA and its member companies are convinced that the U.S. export control system needs fixing. Professor J. David Richardson's testimony before this Subcommittee is only the latest evidence that export controls have real costs for industry and the economy. The Subcommittee has heard ample testimony from many sources on just how much the global market and conditions have changed. Our industry supports H.R. 3412, the Roth-Oberstar bill, as one means by which national security and foreign policy objectives can be re-engineered to better fit our nation's economic security.

Other international developments provide an opportunity to more closely integrate the Export Administration Act (EAA) into a comprehensive international export control mechanism.

The Chemical Weapons Convention (CWC), which was opened for signature last January, holds the promise of eliminating the scourge of chemical weapons. It combines a regime of comprehensive reporting obligations backed up by on-site inspections. Commercial chemical facilities will be subject to intrusive and burdensome obligations to comply with the CWC.

The U.S. chemical industry worked with our government, and our foreign counterpart associations, to help bring the CWC to reality. We worked hard to help develop the provisions on such subjects as inspection protocols, confidential information, and reporting requirements. We

think we can help the international organization, and the U.S. government, reach our mutual goal of eliminating chemical weapons through efficient implementation of the CWC. Over 150 countries, including the United States, have now signed the Convention. President Clinton transmitted the CWC to the Senate just last week; we understand that the Administration's draft implementing legislation will be sent to Congress in the near future.

Three years after the Convention goes into effect, trade with non-signatory countries in certain chemicals will be prohibited. Five years after entry into force trade with non-signatories will be prohibited for a broader list of chemicals. The CWC imposes its own export control regime, at least as applied to non-signatory countries.

Does the CWC mean the end of the Australia Group, the informal coalition of the U.S. and its allies dedicated to non-proliferation measures? It does not.

The CWC provides an opportunity to expand membership in the Australia Group, to seek the broad multilateral commitments necessary to ensure the effectiveness of export controls. The CWC's reporting and verification provisions -- supplemented by national intelligence measures -- mean that U.S. export controls no longer must be so restrictive. CMA believes that the CWC regime will be much more effective at detecting and deterring proliferation attempts than unilateral export control systems could ever be.

Making the CWC regime as effective as it can be depends on a number of variables, not the least of which is national implementation. For the United States, effective implementation requires integrating the CWC export controls into the EAA system.

CMA believes that a few simple principles provide important guidance in creating a more comprehensive international non-proliferation system.

First, the United States must commit to implement export controls on a truly multilateral basis. It is simply not realistic to expect that unilateral controls will have the desired effect, particularly in global industries like chemicals. Rather, CMA believes that a multilateral approach based on end-user and destination controls (an approach suggested by the CWC) stands a better chance of achieving foreign policy and national security objectives.

As the Subcommittee is aware, over 20 countries outside the Australia Group are suppliers of chemicals or equipment controlled in the United States for non-proliferation purposes. Legitimate foreign customers need not purchase those materials from U.S. suppliers. A revamped export control system could promote U.S. supplies of those materials to legitimate customers and users as an integral part of this country's non-proliferation policies. Multilateral support for this type of approach would help create a network that enhances national intelligence measures to prevent the diversion of chemicals to illegal weapons production.

Second, there is more to multilateralism than a simple list of products or technologies to be controlled. The true measure of multilateralism in export controls is how different countries implement and enforce them. For example, is there a common list of controlled destinations? Is the process by which multilateral controls are conceived transparent. Are the gritty details -- things like de minimis exemptions from licensing requirements -- identical?

The search for a practical de minimis licensing exemption for chemical mixtures containing precursor chemicals is a simple example. In August, 1992, CMA proposed to the Bureau of Export Administration (BXA) that chemical mixtures containing less than a given percentage of precursor material should be eligible for shipment under general licenses. The percentage should be set fairly high, we said. There is no evidence that suggest that mixtures containing precursors pose an actual proliferation threat. It is possible to manufacture the controlled precursors with

relatively simple technology and at relatively low cost. Buying mixtures would increase the cost of acquiring a chemical weapons capability so much as to be prohibitive, even if the precursor could be readily separated from the mixture.

Significantly, many of our trading partners in the Australia Group apply a mixtures exemption of the type advocated by CMA. The current U.S. approach, however, is to insist that every mixture containing a precursor, regardless of the concentration, requires an individual validated license to destinations outside the Australia Group. The differences in applying a mixtures exemption is not multilateralism, it is unilateral policy in the guise of a multilateral measure.

Third, practicability must be considered in the decision whether or not to impose restrictive export controls. If a control is unlikely to accomplish anything other than lost sales to legitimate foreign customers, or if there are ready substitutes for the controlled equipment or technology, alternative control measures should be considered.

CMA's deepest objection to some of the controls imposed by the U.S. system is that they appear to have been established on the assumption that every foreign customer is a potential proliferator. The folly in this approach is that U.S. manufacturers, and the U.S. economy, lose.

Several examples illustrate our concerns. Under existing U.S. controls, sales of certain precursors, equipment and technology outside the Australia Group require individual validated licenses. Sales of these materials to Mexico, for example, require a license. Although the volume of traffic in the restricted materials to Mexico is not very large, the point is that U.S. trade with Mexico is impeded. U.S. suppliers must jump through hoops other foreign suppliers do not face. And despite the approval of the North American Free Trade Agreement (NAFTA), there will remain one area where trade with Mexico is not "free" of unnecessary restrictions.

In addition, it is apparent that U.S. export controls are applied at levels so high that they have little practicable impact on non-proliferation efforts. The United States currently controls the shipment of glass-lined reactors. Carbon steel or scrap reactor vessels are not, however, controlled. But a government bent on acquiring a chemical weapons capability would not need a glass-lined reactor in order to manufacture weapons agents. In fact, that government could procure ordinary equipment -- reminiscent of technology from the 1920's -- to produce chemical weapons. The difference in product quality would be negligible from the proliferator's standpoint: the equipment might last only 5 years instead of 15 or 20 years. But long-term production capability is not what the proliferator is interested in.

Practicability should also be reflected in the products that are controlled for non-proliferation purposes. Triethanolamine is a chemical controlled to destinations outside the Australia Group. It is manufactured world-wide, and has its largest applications in consumer products such as shaving creams and soaps. Similarly, sodium sulfide is controlled by the United States to destinations outside the U.S., but it is manufactured in Europe, China and Argentina. Sodium sulfide is typically used to remove the hair from hides used by the leather tanning industry, and is readily made from the simple reduction of sodium hydroxide and sodium sulphhydrate, some 17 million metric tons of which are on the world market. Is it really practical to attempt to control all U.S. exports of triethanolamine and sodium sulfide in such circumstances?

These are simple principles, to be sure. Yet the existing U.S. export control system has ignored them in the effort to create an operable non-proliferation program.

We think that it's time to bring common sense back into the export control process. We think that foreign availability should be a factor in determining the risk of proliferation. We think that national intelligence means should be more closely linked with export control decisions. All too often, export controls seem to have been established for reasons of "tradition" rather than sound scientific or economic thinking. CMA urges that careful thought be given to how U.S. law can be more closely integrated with international control efforts such as the Chemical Weapons Convention to achieve an efficient, meaningful system of controls.

UNDERLYING CONCEPTS FOR UNITED STATES EXPORT CONTROL REFORM

The Emergency Committee for American Trade (ECAT), an organization representing the chief executive officers of a number of America's leading corporations, asks the 103rd Congress and the Clinton Administration to work with American exporters for meaningful and significant reform of the statute governing U.S. export controls.

With the end of the Cold War, the need for export controls remains, but they should incorporate the following concepts:

Global and American Dynamics Have Changed

The collapse of the former Soviet Union and the democratization process under way in Eastern and Central Europe are fact. In the future, the major competition among the world's leading powers very likely will be of a predominantly economic nature. *America's fundamental interests are at stake in this global economic competition. Failure to address the dynamics of this global economic challenge in the export control law and its administration will certainly harm America's export led economic recovery, with related negative effects on our defense industrial base and on our international leadership.*

During the upcoming debate on the Export Administration Act, we in ECAT will emphasize the following points:

- America's long term economic recovery and sustained growth will likely be led through export growth.
- Export led growth will rely principally on high technology products and know-how, the same products and know-how that bear the major burden of export control policy, law and administration.
- American high technology supremacy can no longer be presumed, as it was in the early Cold War era. Our principal foreign competitors are very strong in virtually every leading commercial technology sector.
- Globalization of industry is now a fact of life. America's economic, trade, security and foreign policies should not disrupt international industrial and technology alliances among firms, global sourcing patterns, international manufacturing projects, cross-border joint ventures, or technology transfer programs without a clear and compelling national interest. To do so to threaten the very life blood of American high technology companies.
- Being first to the market with the best products at the most reasonable prices drives competitiveness. This has resulted in dramatically shortened product cycles around the world -- Product cycles

in some high technology industries have contracted from 7 years to 18 months during the last two decades and from 5 years to less than 6 months in others. If all or part of the export control regime impedes product cycles, demand for American exports will diminish.

- This continuing acceleration and compaction of product cycles result in the global availability of high technology items to individual consumers around the world -- for example, the power of room-sized supercomputers in the early 1980s is now available in computers that air travellers take on airplanes. To be competitive, America's exporters need a far more responsive export control process that is based on mission, organization, and management focus in order to promote U.S. economic and national security interests.

ECAT members accept the continuing need for export controls, but such controls should be vital to national security and should be based on the reality of the threat. It is important that they be well articulated and understood, as well as being structured within a multinational set of controls as during the Cold War era. In his vision of global economic competitiveness and prosperity, President Clinton should discuss the role of export controls in the context of challenges to United States and allied security interests, such as helping to curb the proliferation of weapons of mass destruction.

Statutory Authority for U.S. Controls Must Also Shift

We strongly recommend replacing the old distinction under the previous Export Administration Act between national security and foreign policy control authority with a new distinction between multilateral and unilateral control authority.

As discussed below, the old distinction between national security ("section 5 controls") and foreign policy ("section 6 controls") has been severely abused in recent years, resulting in enormous inequities for American exporters vis-a-vis their foreign competitors.

During the upcoming discussion about export control reform, ECAT will stress the following points:

- U.S. exporters play on an uneven playing field. The distinction between national security and foreign policy controls has been blurred by a small group of officials who have miscast what should have been controls imposed for national security reasons as foreign policy controls, thereby denying U.S. exporters the rights and protections afforded under national security authority. This has been particularly true through the classification of export controls to control the proliferation of weapons of mass destruction and their delivery system as foreign policy controls, and not national security controls.
- The underlying rationale for the old distinction still remains; i.e., the need under U.S. law for Congress and the President to respond to specific instances where the actions of foreign governments threaten the national interests of the United States. We recommend distin-

guishing between multilateral controls and those rare instances where unilateral action by the United States is required.

- This distinction will help to level the playing field for U.S. exporters and will help to enhance our reputation as reliable suppliers in the global marketplace.

Multilateral Controls Are Essential

With the advent of true global competition and the widespread availability of high technology products from many countries, ECAT will continue to support U.S. Government efforts to encourage all supplier countries to join in a collaborative export control system. The price tag for this, however, is obvious: When countries cooperate meaningfully in multilateral export control programs, then U.S. exports to those countries should not be controlled. Common standards of licensing and enforcement mean no meaningful distinction between allied approaches to export controls, thereby eliminating the need for redundant controls. This means as well that re-exports of U.S.-origin items also should not be controlled from Washington. Collaborative export controls either work or they do not. When they do, then there is no valid basis for U.S. export or re-export controls to our principal allies.

ECAT will address these additional points in the upcoming discussion:

- Unilateral controls should be used rarely, and only in statutorily prescribed instances. We will make recommendations on how this should be achieved in manners consistent with the Constitutional prerogatives of the legislative and executive branches of the federal government.
- Incentives should be built into the multilateral control system to encourage non-cooperating countries to join the system. When they show reluctance to do so, then exports to them should be controlled.
- The "proliferation of proliferation control regimes" needs to be halted. All current (and future) control regimes should be consolidated into a single multilateral control regime to ensure consistency and harmonization of control lists.
- Control lists (both of target countries and commodities) should be agreed upon by all members of the multilateral control regime to ensure equity of treatment for all exporters. International list reviews need improved methods to take into account foreign availability, controllability, substitutability, and technological pace considerations. ECAT will make specific recommendations in these areas.

Conclusion

As the world approaches the twenty-first century, we in ECAT believe the United States has an opportunity to establish its leadership for the next several decades. This leadership must take into account the dramatic shift in the dynamics of international competition from a superpower military/political rivalry to a truly productive and beneficial economic

competition. American government and business leaders share equally in the stakes of this new competition, and it is vital that both sectors work closely together to formulate the directions of future export control policy.

ECAT's members welcome the opportunity to participate fully in this dialogue.

PROVISIONS OF THE NEW
EXPORT ADMINISTRATION ACT

Table of Contents

PAGE

TITLE I: FINDINGS AND POLICIES

- | | | |
|----|--------------------------------|---|
| 1. | Statement of Findings & Policy | 1 |
| 2. | Carryover Findings & Policy | 3 |

TITLE II: APPROACH TO AND SCOPE OF THE NEW ACT

- | | | |
|----|--|---|
| 1. | Sense of Congress: New World & Export Controls | 4 |
| 2. | Executive Order | 4 |
| 3. | Scope of Application | 4 |
| 4. | "Commercial" Defined | 5 |
| 5. | Eliminate Foreign Policy Distinction | 5 |

TITLE III: FOCUS ON MULTILATERAL CONTROLS

Subtitle A -- Control Authority Provisions

- | | | |
|----|---|---|
| 1. | New Title on Multilateral Controls | 6 |
| 2. | Authority to Control Exports | 6 |
| 3. | Types of Licenses | 7 |
| 4. | Delegation of Authority | 8 |
| 5. | Administrative and Regulatory Authority | 8 |
| 6. | Re-Export Controls | 8 |
| 7. | Re-Exports of Technology | 8 |

Subtitle B -- Country Treatment Provisions

- | | | |
|-----|--|----|
| 8. | "Multilateral Controls" Defined | 9 |
| 9. | License Free Zone | 9 |
| 10. | Cooperating Countries Treatment | 10 |
| 11. | Non-Compliance with Multilateral Agreement | 10 |
| 12. | Mexico | 10 |
| 13. | Countries Representing a Lesser Strategic Threat | 10 |
| 14. | Controlled Countries | 11 |

Subtitle C -- Control List Provisions

- | | | |
|-----|--|----|
| 15. | International Control List | 11 |
| 16. | US Control List | 12 |
| 17. | Control List Considerations | 12 |
| 18. | Review and Revision of International and US
Control Lists | 13 |
| 19. | Indexing | 13 |
| 20. | Commodity Jurisdiction | 14 |
| 21. | Parts and Components | 14 |
| 22. | Contract Sanctity | 14 |
| 23. | Anticipatory Foreign Availability | 14 |

24.	Substitutability	16
25.	"Substitutable" Defined	16
26.	Controllability	17
27.	Controllability Factors	17

Subtitle D -- Other Control Authority Provisions

28.	Provisions from the 1992 Conference Report	18
	-- Trade Shows	
	-- Exports of Related Technical Data	
	-- Negotiations with other Countries	
	-- Removal of Section 5(k) Designation	
	-- Notification of COCOM (Multilateral Control Regime) Actions	
	-- Policy toward Countries Receiving Licensing Benefits	
29.	Carryover Provisions from Old Act	18
	-- Diversion	
	-- Goods Containing Controlled Parts and Components	
	-- Security Measures	
	-- Record Keeping	
	-- National Security Control Office	
	-- Exclusion for Agricultural Commodities	
30.	Short Supply Controls	19
31.	Procedures for Hardship Relief from Export Controls	19

TITLE IV: U.S. GOVERNMENT ORGANIZATION FOR EXPORT CONTROLS

1.	Other Legislative Authority	20
2.	Administrative Authority	20

TITLE V: US EXPORTER RIGHTS AND OBLIGATIONS OF THE US GOVERNMENT

1.	Right to Export	21
2.	Judicial and Administrative Review	21
3.	Private Sector Advice	21
4.	Procedures for Processing Export License Applications and Other Inquiries	22
5.	Fees	22
6.	Violations	22
7.	Enforcement	23

TITLE VI: OTHER PROVISIONS

1.	Effective Date	24
2.	Expiration	24
3.	Annual Report	24
4.	Definitions	24
5.	Effect on Other Acts	25
6.	Authorization of Appropriations	25

NOTES ON WORDING IN THE TEXT

- Not intended to read as though they were statutory wording
- References to "multilateral control regime" indicate a preference that the major proliferation control regimes, and COCOM, be brought into a single multilateral control regime as called for in the new Title III proposed here

Policies and Objectives for the New Act

TITLE I

1. Recommendation -- The new Act should include a statement of findings and policies as follows:

- Statement of Findings

- a. *Finding* -- Sustained economic growth in the United States depends on a healthy export base, and export controls should be considered within the broader framework of American economic performance.
- b. *Finding* -- The globalization of industry and the forces underpinning the global economy makes it vital to US economic and national security that export controls not diminish American competitiveness.
- c. *Finding* -- American leadership in developing and supplying state of the art technology and products can no longer be assumed -- export controls should not reflect the outmoded presumption of American commercial technological superiority.
- d. *Finding* -- American military technological superiority is no longer driven by military and federal spending; rather, American military superiority now relies on technology developed for commercial applications.
- e. *Finding* -- Experience with export controls proves that controls work best in influencing the behavior of foreign governments when they are applied multilaterally. Unilateral controls rarely influence foreign government behavior, especially in light of the supply of products from numerous worldwide sources.
- f. *Finding* -- New means are required in export control administration to assess foreign availability in a more anticipatory manner and taking into account the new elements of controllability and substitutability

- Statement of Policy

- a. *Policy* -- Export controls should be exercised with care, given their negative impact on US economic performance and the impact that can have on the US industrial base and national security.
- b. *Policy* -- Export controls for proliferation reasons should be reviewed routinely in light of their consistency with other Administration policies and programs dealing with countries of proliferation concern.
- c. *Policy* -- While export controls are an important component of US non-proliferation policy, they should be used only when they show promise of contributing directly to a non-

- proliferation objective, and only after careful review of other policy options available to the President.
- d. *Policy* -- American exporters have a *right to export* granted under this new Act, such right to be abridged only as set forth in the provisions of this Act.
 - e. *Policy* -- The Administration should make a best faith effort to enlist the private sector as partners, rather than adversaries, in the implementation of export control policies and practices.
 - f. *Policy* -- Multilateral controls are essential to the success of export controls. Unilateral controls, given their ineffectiveness, should be used rarely.
 - g. *Policy* -- Re-export controls, except in the case of multilateral embargoes, or in cases where multilateral control regimes agree to apply them collectively, should never be used, given the legal double jeopardy it implies for employees of American corporations and the negative impact they have on the foreign policy of the US.
 - h. *Policy* -- Penalties for violations of US export controls should be applied only to persons subject to the jurisdiction of the United States.
 - i. *Policy* -- To encourage multilateral cooperation in export controls, the US should negotiate a single multilateral coordinating mechanism to ensure consistency of policies, practices, and export controls in order to assure a level playing field for US exporters.
 - j. *Policy* -- Sanctions imposed on foreign governments for acting irresponsibly should be used sparingly, and only after the US Government has entered into negotiations with a foreign government to cease its actions and has failed to reach agreement.
 - k. *Policy* -- Sanctions imposed on foreign persons (i.e., not governments) should be applied similarly, and should not affect critical sources of US supply or entities other than the specific ones which have acted irresponsibly.

Proposed Legislative History

The findings and policies establish the backdrop against which export controls should be administered. The findings recommendations reflect the following:

- The importance of exports to the US economy
- Changing global dynamics, both geopolitically and economically
- Experience under prior export control programs

The policies recommendations reflect the following:

- That export controls should be used only as one of several policy options available to the US Government
- That they should only be used when they show some likelihood of successfully promoting a US Government objective

- That exporters have a right to export, subject to abridgement only as set out under the Act
 - That the Administration should seek private sector support
 - That multilateral consensus in controls is essential to their success
 - That re-export controls, except in the case of international embargoes, should never be used
 - That penalties and sanctions should be applied carefully and only after careful consideration of how they may affect other American foreign policy interests or the rights to due process of American persons
2. Recommendation -- Include other findings and policies from Section 2 of current law that are consistent with the above recommendation, except:
- a. Conform them to the provisions of this new Act, and
 - b. Delete obsolete provisions

Proposed Legislative History

Current law

Approach to and Scope of the New Act

TITLE II

1. Recommendation: The New World & Export Controls -- Sense of Congress resolution that the President should issue a public statement stating his vision of the new world -- this vision should include:
 - The nature of the new global geopolitical framework and America's role in it
 - The nature of the new global economy and America's role in it
 - Measures he intends to implement to encourage the rest of the world and the American public to engage their support of this vision

Proposed Legislative History

American and multilateral export controls in the Cold War era worked largely because of allied consensus about the nature of the threat (i.e., the USSR, PRC, and their allies). That consensus began to emerge especially with Winston Churchill's "Iron Curtain" speech in Missouri. While "proliferation" of weapons of mass destruction has been cited by Presidents Bush and Clinton, a "defining moment" speech similar to Churchill's is essential in order to win a global consensus about the nature of that threat. Such a speech should also speak to American interests in the global economy. It should also call on the American public and on other global leaders to join in this vision and to support its ultimate objectives

2. Recommendation: Executive Order -- After the President has laid out this vision, require that he issue an executive order to the relevant Administration agencies laying out the framework of the new export control system of the United States, consistent with the findings and policies of this Act. The executive order should be published in the Federal Register.

Proposed Legislative History

The US public, business leaders, and other countries need to see the President's determination in establishing his vision of the new world dynamics and that he, not the various agencies reporting to him, will assume responsibility for ensuring that the programs of the US Government fall within the scope of his vision.

3. Recommendation: Scope of Application -- The designation of "dual use" commodities, covered by the new Act, should be removed from law and replaced by the term "commercial".

4. Recommendation: "Commercial" Defined -- "Commercial" should be defined as those products and technologies which have either been developed for use in civilian applications, or if they were designed originally for military applications, their principal use (i.e., more than 75 percent) has been converted to civilian applications.

Proposed Legislative History

The term "dual use" has different meanings under US law, including its use both in export controls and in federal procurement activities, leading to confusion in the administration of export controls. Before the scope of this Act's applicability and that of the multilateral control system can be established with any precision, the intent of Congress in establishing controls over civilian end use products would better be clarified by defining the term "commercial" and limiting the scope of this Act to commercial products and technologies. The 75 percent number suggested here is to give the benefit of the doubt to national security concerns, although a 50 percent number would make greater sense from a policy perspective.

5. Recommendation: Eliminate Foreign Policy Distinction -- Eliminate the distinction in current law between national security and foreign policy export controls.

Proposed Legislative History

National security and foreign policy are flip sides of the same coin, and the distinction under current law gives rise to arbitrary and, at times, capricious abuse of the distinction among Administration agencies. American exporters are the victims of the practice, particularly as it applies to foreign availability situations and the application of unilateral controls. Congress and the private sector have worked over many years to construct appropriate means to address foreign availability and to limit unilateral application of controls, and administrative practice under IEEPA has allowed these safeguards to American exporters to be undermined. This should further promote the findings and policies under Title I regarding the economic importance to the US of exports.

Focus on Multilateral Controls

TITLE III

Subtitle A -- Control Authority Provisions

1. Recommendation: New Title on Multilateral Controls -- Strike Sections 5 and 6 from current law (except as provided for below) and substitute the following Title.

Proposed Legislative History

A new approach to export controls is needed in the United States to reflect the new geopolitical, technological, and economic realities characteristic of the post-Cold War era. Since national security and foreign policy are inextricably linked, there is no valid distinction that should be retained between such controls as the US has had in the past. This Title merges those two sections from previous law, while still permitting the President and Congress the flexibility needed to address national security/foreign policy issues as they arise. Useful provisions of current law are retained in this Title and following ones.

2. Recommendation: Authority to Control Exports -- The President may control exports of any exports of commercial goods or technology only when such controls are administered under US obligations as a member of a multilateral control regime (details to follow) or as otherwise provided in this Act.

Unilateral Controls on commercial products, as they are required under other US statutes (except those implemented under the Trading with the Enemy Act) shall be consolidated into the new Act, and all such unilateral controls shall be limited as follows:

- a. To a 6 month period in order to give the President an opportunity to negotiate with the United Nations or the multilateral control regime, as appropriate, to encourage as wide a participation in the control (or embargo) as possible. Failing to reach the agreement in the UN or multilateral control regime, the President may extend the unilateral US controls for an additional 3 month period, during which time he shall weigh other policy measures other than export controls by which to influence the policies of the country against which the unilateral controls were originally directed. If the President decides that the unilateral controls should be continued as part of this overall US policy, he shall report to Congress annually on the progress of his policies in achieving their intended objectives, including an assessment of whether the lack of equivalent export controls by other countries is influencing the policies of the target country. If in his annual report, he concludes that this lack of equivalent export

controls is having no demonstrable direct and immediate effect on the policies of the target country, then the unilateral export control shall be removed; or,

- b. To unilateral embargoes as legislatively mandated by Congress; or,
- c. To cases where the US Licensing Authority (To be defined later) promulgates such controls in the Federal Register and affirms in the notice that the United States is the sole supplier of the product or technology which is subject to the unilateral control.
- d. Update, conform, and incorporate Section 112 of the 1992 conference report on H.R. 3489 defining unilateral controls. Update, conform to other provisions of this Act, and incorporate Section 5(b)(3)(A) of current law denying authority to control exports to non-controlled countries of goods and technology the export of which would only require notification to members of the multilateral control regime. Update, conform, and incorporate the last paragraph of Section 112 of the 1992 conference report on H.R. 3489 saying requirements for the redesign, reengineering, or substantial modification of standard product models or configurations, and similar requirements shall not be imposed under this Act before any license application is approved for the export of goods or technology subject to control by the multilateral control regime, unless the regime agrees to such requirements.

Proposed Legislative History

This provision provides authority to a "US Licensing Authority" (to be named later) to control US exports pursuant to a multilateral export control regime's requirements. It lays out limited cases where the unilateral controls may be permitted, including (1) to give sufficient time to encourage multilateral cooperation with the US on the controls, (2) where the Congress has legislatively mandated a unilateral embargo, or (3) where the US has monopoly on the supply of the products subject to the unilateral embargo. It also consolidates the legislative authority for unilateral controls and embargoes as they appear in other sections of the US Code. These provisions will be consistent with and implement the findings and policies made in the first section of the new Act.

It is not the intent of Congress that the Arms Export Control Act or the Trading with the Enemy Act be used in such a way as to extend unilateral controls to include commercial products or technologies on the International Control List destined for countries subject to control by the multilateral control regime.

- 3. Recommendation: Types of Licenses -- Incorporate the provisions of Section 4(a) of current law establishing types of licenses to include validated licenses, validated licenses authorizing multiple exports, distribution licenses, comprehensive operations licenses, project licenses, service supply licenses, general licenses, and such other licenses as are created

Proposed Legislative History

Current law

4. Recommendation: Delegation of Authority -- Incorporate Section 4(e) of the current law permitting the President to delegate certain powers under the Act.

Proposed Legislative Authority

Current Law

5. Recommendation: Administrative and Regulatory Authority -- Update, conform, and incorporate Section 15 of current law.

Proposed Legislative History

Current Law

6. Recommendation: Re-Export Controls -- Authority to control the re-export of American products and technology shall only be permitted as follows: In pursuance of an international embargo or re-export controls cooperatively implemented by the multilateral control regime and its cooperating countries. Notwithstanding the provisions of any other law, the US shall not apply controls on re-export-related transactions, except that such controls shall be permitted as part of an internationally agreed upon embargo (UN or multilateral control regime) or as part of a US embargo enacted by the US Congress. Authority for administering such controls on re-export-related transactions shall be transferred to the US Licensing Authority (organization to be decided later).

Proposed Legislative History

Re-export controls are rarely, if ever, justified since they are an unwarranted extraterritorial application of US law. Re-export controls put the employees of American companies, both in the US and abroad, at legal "double jeopardy" and they harm American foreign policy interests with key allies. This provision would resolve this issue for the vast majority of American exporters and reconfirm their "right to export" as presented in the findings and policies section of the Act.

7. Recommendation: Re-Exports of Technology -- Incorporate the provisions of section 104(a) of the 1992 conference report on H.R. 3489, providing for a prohibition on re-export controls on technology where the value of US technology as incorporated into other technology is less than 25 percent.

Proposed Legislative History

As in the conference report

Subtitle B -- Country Treatment Provisions

8. Recommendation: "Multilateral Controls" Defined -- Define "multilateral controls" to mean export controls where:
- Internationally agreed upon export controls cover all sources of supply of controlled products and technologies to an agreed upon list of controlled countries and/or projects of concern in such a way as to constrain effectively the ability of such controlled countries and/or projects of concern to acquire the controlled products and technologies.
 - Not included under this definition are situations where:
 - a. Not all sources of supply are included in the control regime, or
 - b. The US exercises unilateral controls as prescribed in the previous recommendation.

Proposed Legislative History

The term "multilateral" has been abused in recent administrative practice. For the purposes of this Act, controls will be considered to be multilateral only when all sources of supply are brought within multilateral control regimes. This should prevent certain agencies from alleging that multilateral controls exist when agreement has been reached between some, but not all countries serving as sources of supply.

9. Recommendation: License Free Zone -- No validated license shall be required on any US export to other members of the multilateral control regime or to any country cooperating with the multilateral control regime after the US Licensing Authority (organization to be decided later) has determined that such regime members or cooperating countries are implementing the items mentioned in Section 5(b)(2)(C)(i)-(v) of current law providing a basis for a common standard of licensing and enforcement. Update and incorporate Section 5(i) of current law to reflect the replacement of COCOM by a new multilateral control regime (this provision directs the President to negotiate for the common standard of licensing and enforcement). Update, conform, and incorporate Section 5(k) directing the President to engage in negotiations with non-members of the control regime in order to encourage their cooperation with the multilateral controls and to afford them equivalent treatment as that received by members. There shall be no exception to this policy, even when only a few members of the multilateral control regime are supplier countries, and the US shall not propose different levels of treatment among members of the multilateral control regime.

Proposed Legislative History

This provision would create a de facto license free zone for members of the multilateral control regime and for cooperating countries based on the logic that these countries have agreed to work cooperatively on export controls for the same policy objectives and have implemented effective export control policies and practices. It will have the effect of enhancing the reputation of American exporters in their major markets abroad that they are reliable suppliers, a reputation which has been harmed through prior administration of US export controls. For commercial products, there would be no exceptions to this level of treatment for members of the control regime. Neither would US negotiators be authorized to negotiate a "suppliers cartel" within the control regime.

10. Recommendation: Cooperating Countries Treatment -- Incorporate a provision similar to the "5(k)" provision of current law, but update it to reflect the new objectives of the multilateral control regime.

Proposed Legislative History

This provision serves as a large carrot to countries who are not members of the multilateral control regime to cooperate with its objectives, policies, and practices, and further advances the national security and foreign policy interests of the US and its multilateral control regime partners.

11. Recommendation: Non-Compliance with Multilateral Agreement -- Update, conform, and incorporate section 117 of the 1992 conference report on H.R. 3489.

Proposed Legislative History

As in the conference report

12. Recommendation: Mexico -- The President shall enter negotiations with the government of Mexico to win Mexico's agreement to cooperate with the objectives, policies, and practices of the multilateral control regime and to afford Mexico the rights of cooperating country status at the earliest date possible.

Proposed Legislative History

In order to further promote the historically close relationship between the United States and Mexico and to advance the benefits to the United States of the North American Free Trade Agreement, it is important that American exporters not be inhibited in their trade with Mexico by US export control law.

13. Recommendation: Countries Representing a Lesser Strategic Threat -- Insert section 105 from the H.R. 3489 conference report and update

it to reflect the replacement of COCOM and the new "controlled countries" list.

Proposed Legislative History

The transitional proposals covering ex-Warsaw Pact countries desiring to cooperate with COCOM is a useful model for a "carrot and stick" approach for encouraging those countries not classified as cooperating countries with the multilateral control regime to cooperate with the objectives, policies, and practices of the members of the control regime.

14. **Recommendation: Controlled Countries** -- The President shall negotiate with the other members of the multilateral control regime to clearly identify those countries, including countries that support international terrorism, to be the subject of multilateral controls. References in current law to "controlled countries" shall be updated to reflect the agreement of the multilateral control regime about which countries shall be on this list. In cases where the list of "controlled countries" includes countries which are also supplier countries, then the President shall encourage the members of the multilateral control regime to negotiate with these countries to encourage their cooperation with the objectives, policies, and practices of the multilateral control regime. Following completion of these negotiations, the US Licensing Authority shall publish the new list of "controlled countries" in the Federal Register.

Proposed Legislative History

The list of those countries identified as the target of US and multilateral control regime export controls needs updating to reflect the new geopolitical situation in the world. Countries (e.g., China or Russia) who have previously been subject to COCOM controls should either be included in the revised list of "controlled countries" as established by the multilateral control regime, or encouraged to cooperate with the regime in order to further promote the objectives of export control policies in programs consistent with the President's vision of the dynamics of the new world as provided for previously in the sense of Congress resolution.

Subtitle C -- Control List Provisions

15. **Recommendation: International Control List** -- As part of the negotiations with the multilateral control regime, the President shall attempt to consolidate the various multilateral control regimes existing today in order to eliminate overlapping and contradictory controls. These negotiations shall include development of a single international control list. The President shall seek the advice of the Secretary of Defense and other appropriate departments and agencies, as well as private sector advice including that provided by the

formal advisory committees established by this Act, in formulating US negotiating positions in the multilateral control regime on list construction and on all subsequent list reviews. The negotiations should take into account the foreign availability, substitutability, and controllability factors as required in this Act as a means to encourage multilateral agreement on the appropriateness of including items on the international control list and as a means to promote their use in periodic list review negotiations. Following completion of the negotiations, the US Licensing Authority shall publish the new consolidated control list in the Federal Register, along with a description of the agreement on consolidating the existing multilateral control regimes into a single body.

Proposed Legislative History

This provision is meant (1) to eliminate overlapping and conflicting controls that arise from multiple multilateral control regimes, (2) to clearly identify controlled products and technologies in a single international control list, and (3) to educate and inform the US exporting community in as much detail as possible about what products are on the international control list.

16. Recommendation: US Control List -- Amend Section 4(b) of the current act as follows -- The US Licensing Authority (organization to be decided later) shall develop a US Control List and publish it in the Federal Register. The US Control List shall include only those items that are included on the International Control List, unless otherwise provided for in this Act. Sufficient opportunity for comment shall be provided in the notice. Incorporate the provisions of the 1992 conference report on H.R. 3489 saying requirements for the redesign, reengineering, or substantial modification of standard product models or configurations, and similar requirements shall not be imposed under this Act before any license application is approved for the export of goods or technology subject to control by the multilateral control regime, unless the regime agrees to such requirements.

Proposed Legislative History

Provides for conformity with the International Control List, as well as conformity with other provisions of this Act, in construction of the US Control List.

17. Recommendation: Control List Considerations -- Update, conform, and incorporate provisions of Section 5(e) of current law regarding limiting control list construction in light of licensing volumes, replacement parts, etc.

Proposed Legislative History

Current Law

18. Recommendation: Review and Revision of International and US Control Lists -- The President shall negotiate with other members of the multilateral control regime to develop improved measures to review and update the international control list, including:

- a. Measures to assure that the list review cycle is shorter than the average product life cycle of a controlled product category, and,
- b. Means to ensure that supply of products from members of the multilateral control regime to controlled countries is not constrained in such a way as to provide a business incentive to suppliers from countries who are not members of the regime.

Following each multilateral list review exercise, the President shall submit a non-classified report to Congress on the results of the list review, including an analysis of the anticipated impact that continued or new export controls are expected to have on US export performance in each controlled product category that was the subject of the list review exercise

Update, conform, and incorporate Section 111 of the 1992 conference report on H.R. 3489 on US Control List Review

Proposed Legislative History

This measure is to address a problem in industries, such as personal computers and workstations, where product cycles are shorter than list review exercises in the current COCOM system, a shortcoming in the present system which means that controls will never be current and exporter dissatisfaction will increase.

19. Recommendation: Indexing -- As a means to assist US negotiators in the multilateral control regime list review process, the US Licensing Authority shall publish within one year of enactment of the new Act procedures, for products where performance is measurable, indexing methodologies to provide guidance to US negotiators. Such indexing methodologies shall not be binding on US negotiators. Technical input on product performance shall be received from the Technical Advisory Committees and other reliable sources and shall comprise the data input upon which the indexing methodologies will be based. If, after implementation of this program, US negotiators decide not to use the results of the indexing methodology in the course of the multilateral list review exercise, then the US Licensing Authority shall report to Congress listing the reasons why the results have not been used. The indexing methodologies for supercomputers shall be that which is prescribed in H.R. 3489 (but consistent with the multilateral control provisions of this Act), unless the US Licensing Authority publishes a new methodology and the reasons for its adoption.

Proposed Legislative History

This language addresses two of the weaknesses of H.R. 3489's indexing provisions by (1) removing the automaticity of the control

relaxation, and (2) taking into account the international obligations of the United States. It gives authority to the US Licensing Authority to publish indexing methodologies for those products where indexing is appropriate, and states that the results of the indexing exercise shall serve as the basis for US negotiating position in the list review activities of the multilateral control regime. If the results are not used, then a report to Congress is required outlining the reasons why. It also requires that if no indexing methodology for computers and supercomputers has been promulgated as of the effective date of enactment of this section, then the procedures for indexing as described in H.R. 3489 shall take immediate effect.

20. Recommendation: Commodity Jurisdiction -- Update, conform, and incorporate Section 107 of the 1992 conference report on H.R.3489 to define how the new Act covering commercial exports should be distinguished from coverage of the Arms Export Control Act. These provisions should be conformed to the new definition of "commercial" as presented in the previous recommendation.

Proposed Legislative History

We are not proposing to merge this Act and the Arms Export Control Act at this time. The CJ provisions of the 1992 conference report enjoyed the support of Congress, the Bush Administration, and the private sector and are therefore worth promoting for use in the new Act. This provision also requires conforming the US Control List with the international control list and describes procedures for resolving conflicts over jurisdiction.

21. Recommendation: Parts and Components -- Retain Section 5(a)(5) of current law on parts and components de minimis authority.

Proposed Legislative History

Current law

22. Recommendation: Contract Sanctity -- Retain current law on contract sanctity.

Proposed Legislative History

Current law

23. Recommendation: Anticipatory Foreign Availability -- Replace Section 4(c) and Section 5(f) with the following: The foreign availability provisions of the new act should apply as follows:

-- Measures to address foreign availability;

- a. The Office of Foreign Availability (OFA) or its successor shall be required to adopt new procedures to determine the availability of products or technologies that will likely be available to controlled countries from sources of supply outside the multi-lateral control regime(s) over the next 18 months. When, after a positive determination is made that a product (or non-controlled substitutable products that can perform the same function as the U.S. controlled product) is likely to be available in substantial quantities from non-controlled sources over the next 18 month period, then --
 - 1) The Secretary of Commerce shall be required immediately to publish notice in the Federal Register that the product is to be decontrolled completely to all non-controlled destinations, and,
 - 2) The Secretary of State shall be required to propose to COCOM, or its successor organization, that those products be decontrolled immediately.
- b. "Substantial quantities", as the term is used above, should mean any product where more than 100,000 units will be sold and installed with end users worldwide (this quantity to include non-controlled substitutable products that can perform the same function as the U.S.-controlled product).
- c. In making its determination, OFA shall receive input from the following sources, among others:
 - 1) The Technical Advisory Committees,
 - 2) Industry associations;
 - 3) Individual companies;
 - 4) Informed industry observers; and
 - 5) U.S. Government sources of industry information.
- d. The input received from these sources should include, among other information OFA deems to be necessary, the following:
 - 1) Anticipated supply of the product or non-controlled substitutable products;
 - 2) Manufacturing plans, including confirmation that adequate financial funding for new capital investments is being devoted to those plans;
 - 3) Marketing plans, including through various forms of distribution outlets, such as retail stores, telemarketing, catalogue sales, value added remarketers, OEM sales, and other mass market and customized marketing outlets;
 - 4) Plans for educating employees about the new products;
 - 5) Plans for establishing worldwide service operations to maintain and upgrade the products; and,
 - 6) Other information that OFA deems necessary to complete its determination.
- e. Following receipt of this information, OFA shall verify its accuracy, using all means it deems necessary to confirm its accuracy, and then shall proceed to make its final determination.

- f. This process shall be performed at least on an annual basis, and each time, it shall last no longer than 120 calendar days.

Proposed Legislative History

Current foreign availability law is too cumbersome and is oriented to making determinations about availability after foreign markets have already been captured by non-U.S. sources of supply. As such, it creates a protective umbrella for foreign manufacturers to the detriment of U.S. exporters.

The approach in the new anticipatory foreign availability section will be forward-looking, helping the U.S. Government to anticipate short product cycle, highly innovative product sectors, particularly computers and semiconductors. Already, most of these products have achieved commodity status already, and it should be expected that this new anticipatory foreign availability approach should help the Administration to make better judgments about controlling such products at all.

This approach would, in effect, codify the approach used by the Clinton Administration in the process it followed leading up to the highly successful September 29, 1993, Trade Policy Coordinating Committee report's recommendations on export controls

Note that not all products (e.g., telecommunications products) will exceed the 100,000 unit threshold. ECAT will be happy to work with Congress and the Administration to develop adaptations of this recommendation to fit those product sectors.

24. Recommendation: Substitutability -- Products shall not be controlled by the United States when substitutable products are available from American or foreign sources of supply without effective multilateral controls.

Proposed Legislative History

It makes no sense to control products that perform similar or identical functions to other products that are not also controlled.

25. Recommendation: "Substitutable" Defined -- Define "substitutable" as follows: Products are substitutable when --

- a. They are available without control from sources in the United States or abroad,
- b. They perform functions similar to or identical to those performed by controlled products, and
- c. Even though they may not perform a function as fast as a controlled product, the end result of their performance is essentially similar or identical to that of the controlled product and

the purpose of the product control in delaying the time to acquire and deploy the product has become outdated in light of existing acquisition and deployment of the substitutable product.

Proposed Legislative History

The history of controls in the Cold War era showed that, at times, controls were maintained on products despite the fact that products roughly equivalent in performance were available from sources in the US and abroad. This provision would eliminate that nonsensical situation. Congress intends that this should apply particularly in the areas of electronics and software exports.

26. Recommendation: Controllability -- Require the US Licensing Authority to track whether products, due to their inherent characteristics or sales/distribution channels, are controllable. If the US Licensing Authority concludes that a controlled product is no longer controllable, then require the President to negotiate with the other members of the multilateral control regime for removal of the product from the control list. These negotiations should last no longer than 3 calendar months. The President may retain controls on uncontrollable products only when he determines that overriding national interests are at stake.

Proposed Legislative History

The intent of this provision is obvious -- the Government should not control products that cannot be controlled.

27. Recommendation: Controllability Factors -- The US Licensing Authority, in its continuing assessment of whether products are controllable, shall use the recommendations for computers (but adjustable for other products) 1991 National Academy of Sciences report entitled Finding Common Ground: U.S. Export Controls in a Changed Global Environment. The NAS recommendation is that a product becomes a commodity when 6 of the following 8 characteristics are satisfied:

- *Production Volume:* at least 1 million units in cumulative worldwide production;
- *Unit cost:* less than \$25,000;
- *Number of source countries:* at least two countries that are not participants in CoCom (this would be updated to reflect the membership of the new multilateral control regime);
- *Distribution methods:* at least two of the following: a minimum of three distinct purchasing channels, value-adding intermediaries, multiple outlets (e.g., chain stores), lot purchases of 100 or more units;
- *Substitutability:* product performs tasks that could be similarly performed by another product;
- *Size:* less than 1 cubic meter in volume;

- *Purchasability:* no special qualifications are required to purchase the product; and
- *Service and maintenance:* no service of maintenance required, or multiple service alternatives to the manufacturers exist.

Proposed Legislative History

These criteria are suggested for inclusion in the new EAA, because computers are becoming increasingly uncontrollable due to their commodity status. Congressional intent is that the US Licensing Authority develop similar controllability assessment criteria for other controlled product categories.

Subtitle D -- Other Control Authority Provisions

28. Recommendation: Provisions from the 1992 Conference Report -- Update, conform, and incorporate the following provisions from the 1992 conference report on H.R. 3489:
- a. Section 113 on Trade Shows
 - b. Section 114 on Exports of Related Technical Data
 - c. Section 116 on Negotiations with other Countries
 - d. Section 118 on Notification of COCOM (Multilateral Control Regime Actions
 - e. Section 121 on Policy Toward Countries Receiving Licensing Benefits

Proposed Legislative History

As in the conference report

29. Recommendation: Carryover Provisions -- Update, conform, and incorporate the following provisions of Section 5 in current law:
- a. 5(1) on Diversion
 - b. 5(m) on Goods Containing Controlled Parts and Components
 - c. 5(n) on Security Measures
 - d. 5(o) on Record Keeping
 - e. 5(p) on National Security Control Office
 - f. 5(q) on Exclusion for Agricultural Commodities

Proposed Legislative History

Current Law

30. Recommendation: Short Supply Controls -- Incorporate Section 7 of current law on short supply controls.

Proposed Legislative History

Current Law

31. Recommendation: Procedures for Hardship Relief from Export Controls -- Retain Section 9 of current law.

Proposed Legislative History

Current Law

U.S. Organization for Export Control Issues

TITLE IV

1. Recommendation: Other Legislative Authority -- Remove the export control authority for commercial (formerly, dual use) product and technology export controls from other statutes and combine into this act.

Proposed Legislative History

With the objective of clarifying and simplifying US export control law and to ensure consistency of regulations, this provision merges other sections of US law governing the export control of commercial products, including embargo, proliferation, and sanctions provisions, into a single Act. This does not include revision (other conforming technical amendments) of the Arms Export Control Act or the Trading with the Enemy Act.

2. Recommendation: Administrative Authority

-- *****

To be discussed in consultations between the public and private sectors:

- One agency???
- Current Approach???
- Modified Current Approach???

Ref: Section 10 of Current Act

U.S. Exporter Rights and Obligations of the U.S. Government

TITLE V

1. Recommendation: Right to Export -- Delete Section 4(d) of current law and replace with a new provision as follows: Unless named specifically on the Table of Denial Orders or having been found guilty of criminal violation of this Act (and its preceding authority), the Arms Export Control Act, or the Trading with the Enemy Act and still serving time in prison as a result of their conviction, all US persons shall have a right to export goods and technology, unless specifically limited by this or other US statutes.

Proposed Legislative History

This provision is intended to set a tone leveling the playing field for US exporters, establishing favorable government attitudes for their activities similar to the attitudes benefiting exporters in other countries. Since the principal characteristic of the international environment has changed from the Cold War mentality to the competition in trade, and since the United States' economic health will continue to rely increasingly on American export competitiveness, and since the national security of the United States depends directly on its export competitiveness, Congress believes government attitudes toward exporters must be encouraging.

This exporter right provision is also intended to lay an improved legal basis for exporter standing in the judicial and administrative review provisions in this Act and to ensure that the Administration, in the execution of its daily responsibilities in administering this and other statutes, exercises due diligence in avoiding the abridgement of exporter rights.

2. Recommendation: Judicial and Administrative Review -- Include Section 123 from the 1992 conference report on H.R. 3489.

Proposed Legislative History

As it appears in the conference report.

3. Recommendation: Private Sector Advice -- Incorporate Section 5(h) of current law and add the following: The President shall establish a Special Advisory Committee comprised of senior executives from the private sector who hold top secret security clearances. The Special Advisory Committee is authorized to receive, consider, and make re-

commendations based on classified information relative to export controls. Members of the Committee are prohibited from disclosing classified information in contravention of their security clearances.

Proposed Legislative History

The new provision of this section is intended to improve communication with the private sector regarding sensitive export control information and to further the objectives of this Act designed to develop a cooperative relationship between the federal government and the private sector. The current Technical Advisory Committee system has helped along these lines, but has been handicapped by the fact that private sector advisors have not held the necessary security clearances. The new provision is intended to address that. The Administration should receive better information as a result of the provision, and even though classified information shared with the Special Advisory Committee members may not be disclosed publicly, it is hoped that the members will be able to find ways to give non-classified information to the private sector at large regarding the rationales, policies, and practices in export controls.

4. Recommendation: Procedures for Processing Export License Applications and Other Inquiries -- Amend Section 10 of current law to provide for faster licensing deadlines and requiring President to study the numerous levels of interagency reviews encumbering the process and issuing an executive order to streamline the interagency review process.

Proposed Legislative History

The amendment to Section 10 is intended to provide for improvements in licensing times, especially on difficult cases, taking into account that "routine" licensing times have improved in recent years. It also addresses the multi-tiered interagency review processes at almost all levels in the Executive Branch which have been the source of much of this delay.

5. Recommendation: Fees -- Incorporate Section 4(g) of current law that no fees may be charged for submitting or the processing of export license applications.

Proposed Legislative History

Current law

6. Recommendation: Violations -- Update, conform, and incorporate Section 11 of current law. Include Section 120 of the 1992 conference report on H.R. 3489.

Proposed Legislative History



186

3 9999 05981 673 4

Current law

Recommendation: Enforcement -- Update, conform, and incorporate Section 11 of current law. Include Section 122 of the 1992 conference report on H.R. 3489.

Proposed Legislative History

Current law

Other Provisions

TITLE VI

1. Recommendation: Effective Date -- This Act shall take effect immediately upon enactment.
2. Recommendation: Expiration -- This Act shall expire 5 years from enactment. If no new authority is granted at the time of its expiration, the President may only use the provisions of the International Emergency Economic Powers Act for a period of up to six months.

Proposed Legislative History

The limitation on IEEPA authority is intended to prevent a recurrence of the current situation where IEEPA has been invoked for over two years following declaration of a national emergency by President Bush, but which in the opinion of Congress, has been in effect too long.

3. Recommendation: Annual Report -- Update, conform, and incorporate Section 14 of current law, and add a new requirement that the report pay particular attention to the effect that export controls have on the US economy, its economic and technological performance, and on the defense industrial base.

Proposed Legislative History

Previous law regarding balancing the national security and foreign policy interests of the US and its economic interests in the administration of export control laws has been observed ineffectively. The new provision is intended to highlight the fact that the Administration needs to do a better job in evaluating the downstream effect of export controls on the country's economy, its technology base, and the defense industrial base. This should permit Congress to exercise improved oversight and to deal with export control laws on a more informed basis.

4. Recommendation: Definitions -- Update, conform, and incorporate Section 16 of current law.

Proposed Legislative History

Current Law

5. Recommendation: Effect on Other Acts -- Update, conform, and incorporate Section 17 of current law, but reduce the time for processing licenses subject to review by the Subgroup on Nuclear Export Controls from 180 days to 90 days.

Proposed Legislative History

Current Law. The amendment is intended to follow the same spirit regarding faster licensing reviews as that provided in the earlier provision in the new Title V regarding Procedures for Processing Export License Applications.

6. Recommendation: Authorization of Appropriations -- Update, conform, and incorporate Section 18 of current law, including Section 127 of the 1992 conference report on H.R. 3489.

Proposed Legislative History

Current Law



78-310 (192)

ISBN 0-16-044319-9



90000



9 780160 443190

